

ONETOUCH[®]
DataLink[®]

Connection Guide



**OneTouch[®] DataLink[®]
Connection Guide**

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OneTouch® DataLink® Connection Overview

OneTouch® DataLink® provides connectivity between SureStepPro® bedside units and OneTouch® Flexx™ meters and OneTouch® MeterLink™ software running on the OneTouch® DataLink® workstation. Using a connection module, you can transfer data between a meter and the workstation through analog phone lines using modems; through an existing network (via an Ethernet connection) using a personal computer or network device; or locally through the workstation serial port. If you are using a OneTouch® Flexx™ meter, you can transfer data directly to the workstation through a serial cable, or through the network via an access point using OneTouch® DataLink® Wireless units.

Figure 1 shows options for transmitting point-of-care blood glucose test results from the meters to the workstation, either through a connection module's infrared communication port, through a serial cable, or through wireless communication.

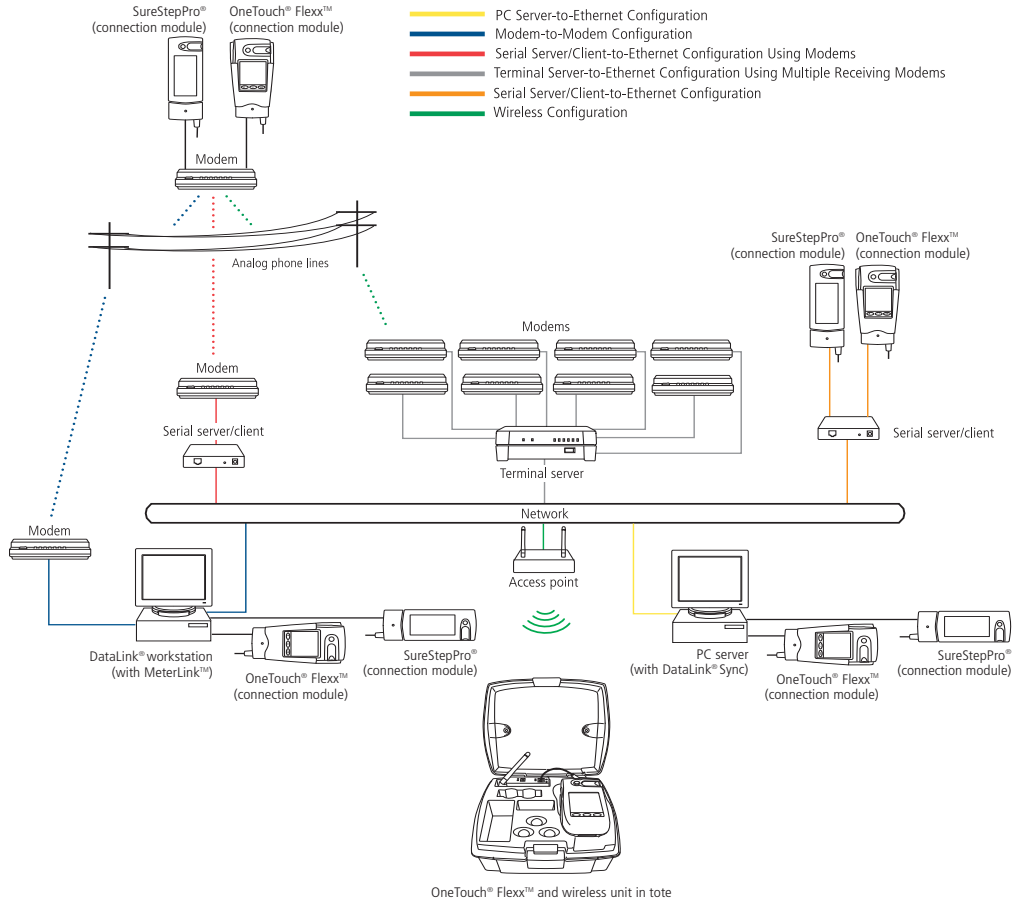


Figure 1 Connectivity configurations

Because there are numerous configuration possibilities and each network is unique, LifeScan recommends you consult with a LifeScan representative for an assessment of your institution's connectivity capabilities and needs.

■ **NOTE:** Consult with your network administrator prior to installing any devices on the network.

Direct Connection

You may connect either the SureStepPro® or the OneTouch® Flexx™ meter directly to the workstation using a connection module. If you are using a OneTouch® Flexx™ meter, you can connect to the workstation using the OneTouch® DataLink® serial cable.

Requirements for Direct Connection

- OneTouch® DataLink® system software, version 3.2 or later
- OneTouch® MeterLink™ software, version 3.0 or later
- OneTouch® DataLink® serial cable (for OneTouch® Flexx™ meter only); or connection module, serial port connector, and phone cable

Modem Configuration

Data from the meter can be transferred from a sending modem through standard analog phone lines to a receiving modem. To utilize an existing network, receiving modems can be connected to a network device, which connects to the network through an Ethernet connection. See “Network Configuration” below.

Requirements for Modem Configuration

- OneTouch® DataLink® system software, version 3.2 or later
- OneTouch® MeterLink™ software, version 3.0 or later
- OneTouch® DataLink® connection module and/or cradle
- Modems
- Analog phone lines
- Serial modem cable (for receiving modem/workstation connection)
- Modem connector and phone cable (for sending modem/connection module connection)

Network Configuration

There are several configuration options available if you have an existing network. By using a standard personal computer (PC) connected to a network and running OneTouch® DataLink® Sync software, you can transfer data from a meter to the workstation through the PC. You may also use a serial server or serial client to connect a meter to the workstation through the network. The serial server/client links the meter or a sending modem to the network. If you are using modems with a network configuration, you can connect one receiving modem to a serial server/client and up to eight receiving modems to

one terminal server. If you are using a wireless configuration, the serial client becomes the OneTouch® DataLink® Wireless unit, which transmits data through the network via an access point.

Requirements for Network Configuration

- OneTouch® DataLink® system software, version 3.2 or later
- OneTouch® MeterLink™ software, version 3.0 or later (version 3.2 or later for OneTouch® DataLink® Sync configuration, version 3.3 or later for serial client network devices, and version 3.3 first Service Release or later for wireless configuration)
- OneTouch® DataLink® serial cable or cradle (for OneTouch® Flexx™ meter only); or connection module, serial port connector, and phone cable
- Network connection supporting Ethernet IEEE 802.3 protocol
- Point-to-point connections across workstation and network device subnets
- TCP/IP protocol and services

Additional Requirements for OneTouch® DataLink® Sync Configuration

- OneTouch® DataLink® Sync software running on the PC
- Personal computer (PC) that is networked to the workstation and has: 300 MHz or greater processor; 800 x 600, 256-color monitor; 50 MB free hard disk space; Windows 98 second edition, Windows NT, 2000, or XP operating system; minimum RAM required by operating system; available RS-232 serial port for connection to a meter

■ **NOTE:** A serial-to-USB adapter may be used if an RS-232, 9-pin serial port is not available. LifeScan does not provide or recommend any serial-to-USB adapters.

Additional Requirements for Network Device Configuration

Contact LifeScan for a list of supported hardware and corresponding configuration parameters for all network device connectivity options.

■ **NOTE:** Connectors and/or hardware configurations for serial clients may be different than for serial servers. Contact LifeScan for information on connecting serial clients to the network.

Using This Guide

This guide outlines several connection configurations and provides instructions for installing the components and transferring data.

After identifying the appropriate configuration setup:

- Refer to the specific section of this guide to connect the hardware components. The numbered steps in the instructions correspond to the numbers in the connection figure.
- Then, if you are using a network configuration with network devices, assign IP addresses and configure the devices. If LifeScan assisted you with your initial

OneTouch® DataLink® installation, this step was completed during the setup. If you are using a PC to transfer data, refer to “OneTouch® DataLink® Sync Configuration” on page 4.

- Finally, read “Establishing Connectivity Using OneTouch® MeterLink™ Software” on page 24.

Refer to the glossary for definitions of unfamiliar terms.

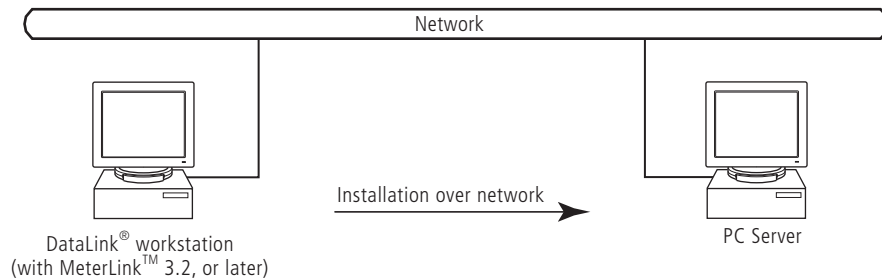
OneTouch® DataLink® Sync Configuration

OneTouch® DataLink® Sync software allows you to connect a meter to the workstation using a personal computer (PC) that is on the same network as the workstation. You may connect a connection module to the PC to transfer data through an infrared connection. Or, if the meter is a OneTouch® Flexx™ meter, you can connect it directly to the PC using a serial cable.

Installing OneTouch® DataLink® Sync Software on a PC Server

Installation occurs over the network from files loaded on the OneTouch® DataLink® workstation. The installation CD loads OneTouch® DataLink® Sync files on the workstation. You must have OneTouch® MeterLink™ software, version 3.2 or later to transfer data from a PC using OneTouch® DataLink® Sync software.

1. Install DataLink® Sync and MeterLink™ 3.2 (or later) on DataLink® workstation.
2. Search network for DataLink® workstation.
3. Install DataLink® Sync on PC server from files located in DataLink® Sync directory on DataLink® workstation.



- 1** Install OneTouch® DataLink® Sync on the workstation. Follow the instructions provided with the OneTouch® DataLink® Sync Installation CD.
- 2** From the PC where you wish to install OneTouch® DataLink® Sync software, use the Search/Find feature to search for the OneTouch® DataLink® workstation computer on the network.

Depending on the PC's operating system, this step may vary. Click to open the Start menu and point to Find (or Search), then select Computer (or For Files or Folders). If you selected For Files or Folders, click Computers under “Search for other items.”

3 Enter the name of the OneTouch® DataLink® workstation. The default name should be LFS_DATALINK or LFS-DATALINK.

4 Locate and open the DataLink Sync directory on the C drive.

5 Double-click install.htm.

The browser launches and a window appears prompting you to install and run “InstallAnywhere Web Installer.” Click Yes or Grant to accept—the button may vary depending on your browser.

6 Click Start Installer for Windows.

The Download Progress screen appears followed by the InstallAnywhere screen.

7 Click Next in the Introduction window.

8 Click Install to install OneTouch® DataLink® Sync software in the default directory (C:/Program Files/LifeScan/DataLink Sync). Or, if you wish to install the program in another location, click Choose and select a new directory.

The installer creates three shortcuts to OneTouch® DataLink® Sync:

- in the Programs folder
- on the desktop
- in the Startup folder

9 Click Done in the Install Complete window.

You may now proceed to configuring OneTouch® DataLink® Sync. Refer to “Configuring OneTouch® DataLink® Sync Software” starting on page 6.

10 Close the browser window.

■ **NOTE:** If you suspect that the installation was not successful, for example, a OneTouch® DataLink® Sync shortcut does not appear on the desktop after installation, you may not have the correct privileges for the PC. Contact your system administrator for assistance.

Connecting a OneTouch® DataLink® Connection Module to the PC Server

The procedure for connecting a connection module or a serial cable to the PC server is the same as connecting to the workstation. Follow the instructions under “Connecting a OneTouch® DataLink® Connection Module to the Workstation” on page 14 to connect a connection module or serial cable to the PC server.

Using OneTouch® DataLink® Sync Software

Configuring OneTouch® DataLink® Sync Software

The first time you launch the program after you install it, the following dialog box appears. If you restart your computer after installing OneTouch® DataLink® Sync software, this dialog box appears after the computer starts.

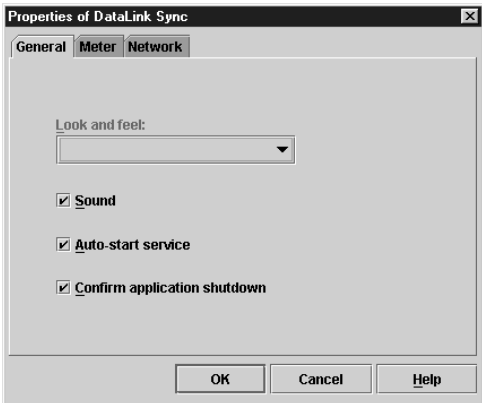


- 1 Click OK.

The properties window appears.

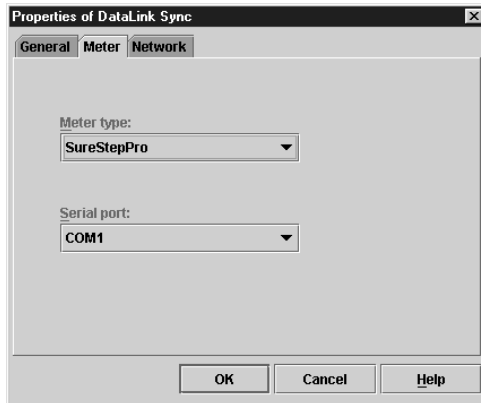
- 2 Refer to the descriptions for each Properties tab field listed in the table below.

The Properties window allows you to set certain software features and select the meter type and COM port used for data transfer. The following table includes information on the General, Meter, and Network tabs. Options at the General tab do not need to be configured for OneTouch® DataLink® Sync software to function correctly.

DataLink® Sync Properties Tabs	Description
	<p>Look and feel Select the appearance of the application. Choose between Metal or Windows.</p> <p>Sound A sound is emitted at the start of a data transfer session.</p> <p>Auto-start service Opens a connection between the workstation and the PC for data transfer when a meter is connected. OneTouch® DataLink® Sync software starts minimized when this option is selected.</p> <p>Confirm application shutdown Always displays a confirmation dialog when you attempt to exit the application.</p>

DataLink[®] Sync Properties Tabs

Description

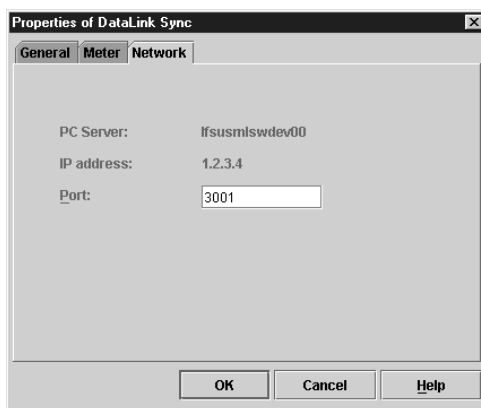


Meter type

Allows you to select the meter type used in the data transfer session. If the meter is OneTouch[®] Flexx[™], select SureStepFlexx (Direct) for a serial cable connection, or SureStepFlexx (Infrared) for a connection module connection. Select SureStepPro if you are connecting a SureStepPro[®] bedside unit.

Serial port

Allows you to select the serial port used for data transfer. You may connect a connection module (for OneTouch[®] Flexx[™] and SureStepPro[®]) or a serial cable (for OneTouch[®] Flexx[™]) to the serial port.



PC server

The name assigned to the PC server.

IP address

The IP address of the PC server.

Port

The TCP/IP port number for the PC server (1024 to 65535). This number must match the port number assigned to the PC server in OneTouch[®] MeterLink[™] software at the workstation (see step 2 on page 29). The default is 3001.

OneTouch[®] DataLink[®] Sync Software Main Screen

OneTouch[®] DataLink[®] Sync software starts automatically when you turn on the PC. If you do not want the program to launch automatically, you can remove the OneTouch[®] DataLink[®] Sync shortcut from the Startup folder. Then, to start the program double-click the OneTouch[®] DataLink[®] Sync icon on the desktop. Or, click Start, point to Programs, then click LifeScan DataLink Sync.

◆ **IMPORTANT:** The program must be open to allow communications to occur.

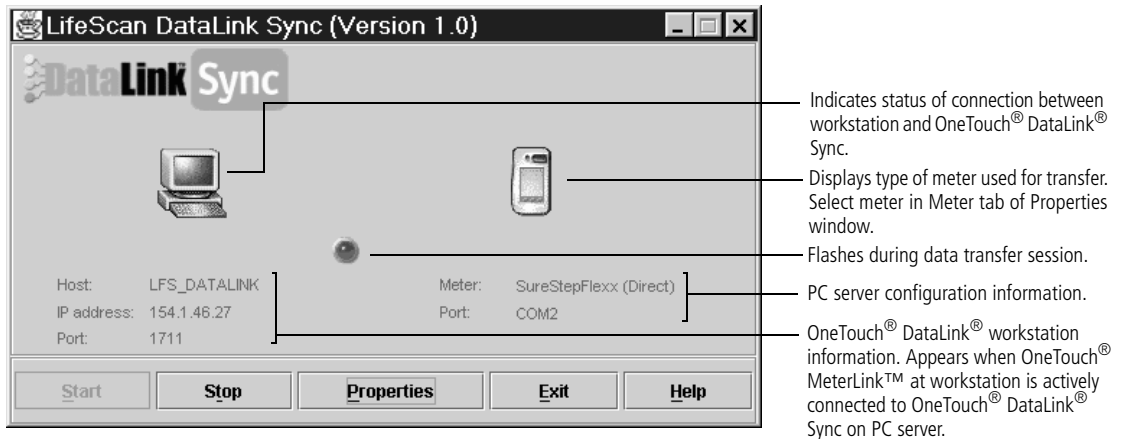


Figure 2 OneTouch® DataLink® Sync software main screen showing active connection with the workstation

- **Start** – opens a connection to the workstation (Host) allowing for data transfer when a meter is connected.
- **Stop** – closes the connection between the workstation and the PC server.
- **Properties** – displays the Properties window allowing you to customize certain OneTouch® DataLink® Sync software features.
- **Exit** – closes the program.
- **Help** – displays the online Help window.

■ **NOTE:** OneTouch® MeterLink™ software regularly opens and closes the connection to OneTouch® DataLink® Sync to ensure a valid connection. The workstation icon and Host, IP address, and Port fields toggle between an active connection and no connection when no communication with a meter is occurring. You will notice the Port number changing with each established connection.

Transferring Data Using OneTouch® DataLink® Sync

Before using OneTouch® DataLink® Sync software to transfer data from the meter to the workstation, you must install OneTouch® DataLink® Sync software on the PC server, configure the settings, and connect a meter to the PC using either a connection module or a serial cable. See page 4 for installation instructions, page 6 for information on configuring OneTouch® DataLink® Sync, and page 6 for connection instructions.

- 1 **Place the meter in the connection module. Or, connect the OneTouch® Flexx™ meter to the PC using a serial cable.**

You can connect a connection module to the PC for transferring data from a SureStepPro® or OneTouch® Flexx™ meter. Or, you can connect a OneTouch® DataLink® serial cable (or the serial cable in the connection module cradle) to the PC

for transferring data from a OneTouch® Flexx™ meter. For more information on transferring data from the meter, refer to “Transferring Data” on page 30.

If Auto-start service is selected in the General tab of the Properties window, data transfer occurs automatically when you connect the meter. If Auto-start service is not selected, you must click Start to begin data transfer.

- **NOTE:** The Start button simply opens a connection between the PC and the workstation. It does not initiate communications. Therefore, the order in which you connect and click Start is not critical (for example, you may click Start, then connect the meter).

Modem-to-Modem Configuration

Modems can be used to connect a meter to the workstation through an analog phone line. Connect a sending modem to the connection module and a receiving modem to the workstation.

Connecting a OneTouch® DataLink® Connection Module to a Sending Modem

Follow this procedure to connect a sending modem to a connection module (see Figure 3). If you have a OneTouch® Flexx™ meter, you can connect the meter to the modem with the serial cable located in the cradle. For instructions on connecting a receiving modem to the workstation, refer to page 15.

- 1 Connect the 3-pin plug of the connection module power cord to the receptacle on the AC adapter. Then, plug the AC adapter into an AC power outlet.

Make sure the green indicator light on the connection module is on.

- 2 Set the switches on the back of the modem as follows:

1	2	3	4	5	6	7	8
up	up	down	up	down	up	down	down

- 3 Connect the power cord from the modem to an AC power outlet.
- 4 Connect a phone cable from the modem to an analog phone jack.

- **NOTE:** The modem’s jack is labeled with a wall plug icon on the bottom of the modem.

If you currently have a fax machine or analog phone plugged into the wall jack, you may plug the fax/phone cable directly into the other jack on the modem (see Figure 3). This jack is labeled with a phone icon on the bottom of the modem.

- 5 Connect a phone cable from the connection module to the modem connector. Then, connect the modem connector to the modem.
If the meter is a OneTouch® Flexx™, you may connect the serial cable in the cradle to the meter. Connect a phone cable from the cradle to the modem

connector. Then, connect the modem connector to the modem (as shown in inset).

▲ **WARNING:** Connect the phone cable to the modem connector only. Failure to do so could result in electrical shock.

6 Turn on the modem.

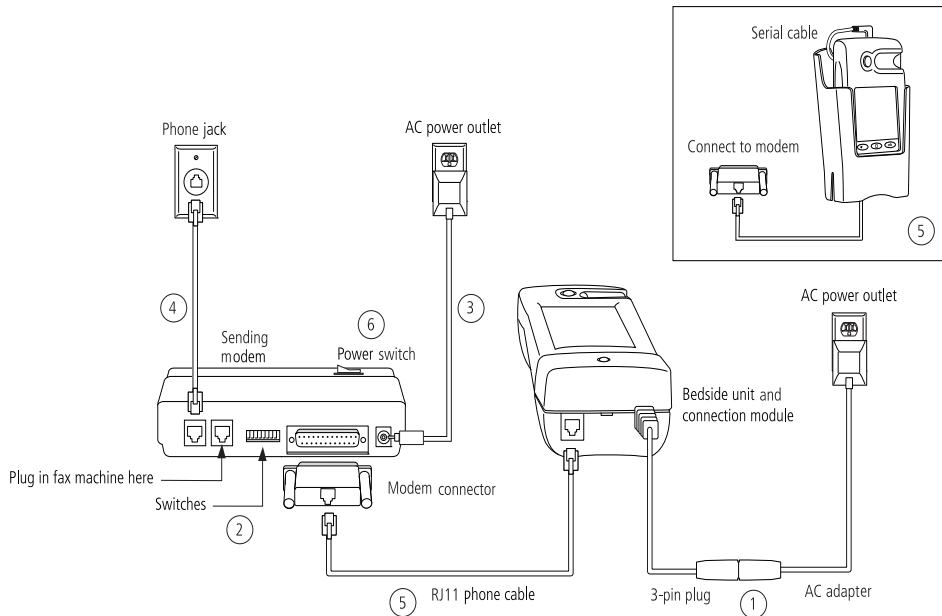


Figure 3 Modem-to-connection module (or meter) connection

Serial Server/Client-to-Ethernet Configuration

A serial server or serial client allows you to connect a connection module to the workstation through your network's Ethernet connection. One serial server/client is required for each connection module. For wireless communication, a wireless unit (serial client) transmits data to an access point installed on your network. The serial server/client must be configured prior to use. Refer to the appropriate document for configuration information.

Connecting a OneTouch® DataLink® Connection Module to a Serial Server/Client

Follow this procedure to connect a serial server/client to a connection module (see Figure 4). If you have a OneTouch® Flexx™ meter, you can connect the meter to the serial server/client with the serial cable located in the cradle.

- 1 Connect the 3-pin plug of the connection module power cord to the receptacle on the AC adapter. Then, plug the AC adapter into an AC power outlet.

Make sure the green indicator light on the connection module is on.

- 2 Connect a phone cable between the connection module and the serial server connector. Then, connect the serial server connector to the serial server/client. If the meter is a OneTouch[®] Flexx[™] meter, you may connect the serial cable in the cradle to the meter. Connect a phone cable from the cradle to the serial server connector. Then, connect the serial server connector to the serial server/client (as shown in inset).
- ▲ **WARNING:** Connect the phone cable to the serial server connector only. Failure to do so could result in electrical shock.
- 3 Connect the power cord from the serial server/client to an AC power outlet.
 - 4 Connect the network patch cable from the serial server/client to the network jack or hub.

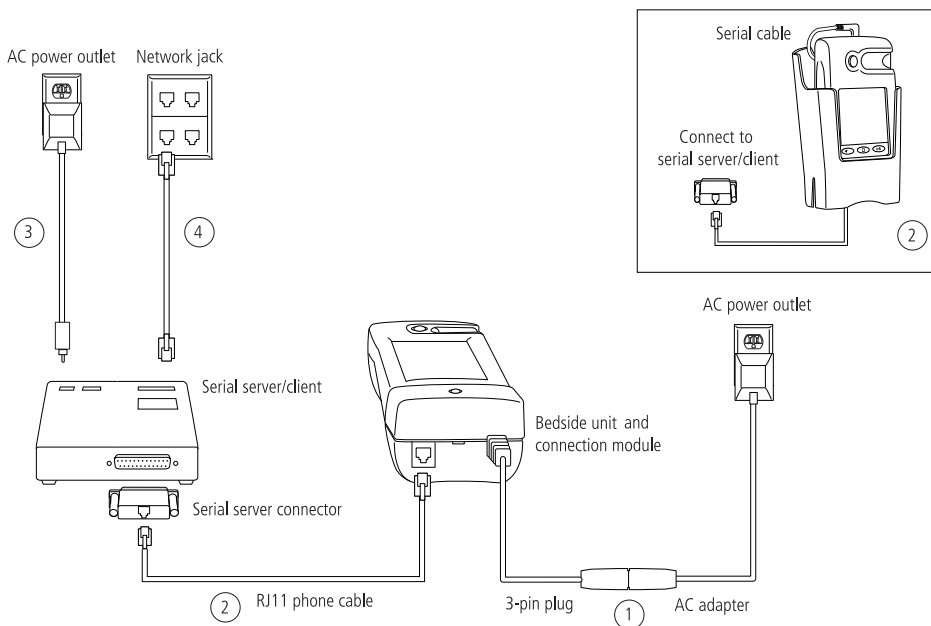


Figure 4 Serial server/client-to-connection module connection

Serial Server/Client-to-Ethernet Configuration Using Modems

Using a serial server or serial client with a modem configuration allows you to incorporate an existing modem configuration into a network. Additionally, if you are using a serial server/client-to-Ethernet configuration and have a remote site(s) that communicates with the parent institution via modem, a serial server/client connected to the receiving modem allows you to transmit data from the remote site to the institution's network. The serial server/client must be configured prior to use. Refer to the appropriate document for configuration information.

Connecting a Receiving Modem to a Serial Server/Client

Follow this procedure to connect a receiving modem to a serial server/client (see Figure 5). For instructions on connecting a sending modem to a connection module, refer to page 9.

1 Set the switches on the back of the modem as follows:

1	2	3	4	5	6	7	8
down	up	up	down	up	up	down	up

- 2 Connect the power cord from the modem to an AC power outlet.**
- 3 Connect a phone cable from the modem to an analog phone jack. The jack must be for a dedicated analog phone line.**
- NOTE:** The modem's jack is labeled with a wall plug icon on the bottom of the modem.
- 4 Connect the power cord from the serial server/client to an AC power outlet.**
- 5 Connect the network patch cable from the serial server/client to the network jack or hub.**
- 6 Connect the modem-to-serial server cable between the serial server/client and modem.**
- 7 Turn on the modem.**

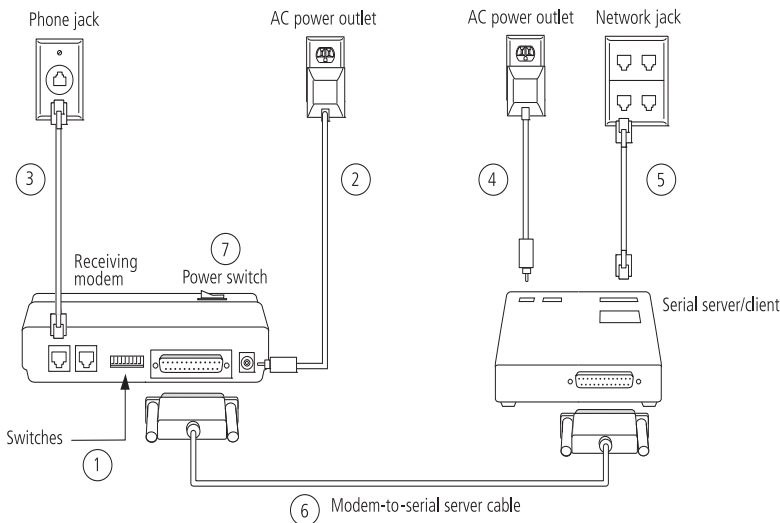


Figure 5 Modem-to-serial server/client connection

Terminal Server-to-Ethernet Configuration Using Multiple Receiving Modems

A terminal server may be used to connect multiple (up to eight) receiving modems to an existing network through an Ethernet connection. The terminal server must be configured prior to use. Refer to the appropriate document for configuration information.

Connecting a Receiving Modem to a Terminal Server

Follow this procedure to connect up to eight receiving modems to a terminal server (see Figure 6). For instructions on connecting a sending modem to a connection module, refer to page 9.

1 Set the switches on the back of the modem as follows:

1	2	3	4	5	6	7	8
down	up	up	down	up	up	down	up

- 2 Connect the power cord from the modem to an AC power outlet.
- 3 Connect a phone cable from the modem to an analog phone jack. The jack must be for a dedicated analog phone line.
- **NOTE:** The modem's jack is labeled with a wall plug icon on the bottom of the modem.
- 4 Connect the network patch cable from the terminal server to the terminal server connector. Then, connect the terminal server connector to the modem.
- 5 Connect the power cord from the terminal server to an AC power outlet.
- 6 Connect the network patch cable from the terminal server to the network jack or hub.
- 7 Turn on the modem and terminal server.

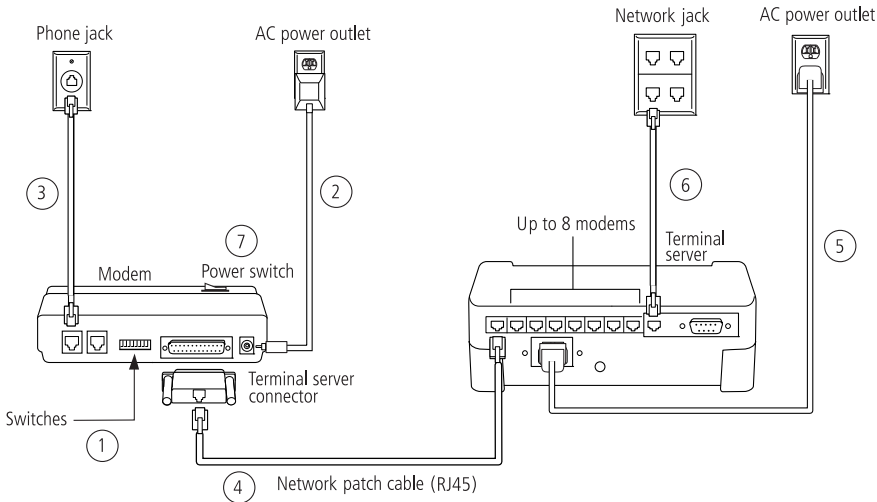


Figure 6 Modem-to-terminal server connection

Connecting to the Workstation

Workstation connections will vary depending on the configurations option you choose. See Figure 1 for connection options.

Connecting a OneTouch® DataLink® Connection Module to the Workstation

Follow this procedure to connect a connection module to the workstation (see Figure 7). If you have a OneTouch® Flexx™ meter, you can connect the meter directly to the workstation using the OneTouch® DataLink® serial cable or the serial cable in the cradle. Turn off the workstation before making any connections.

- 1 Connect the 3-pin plug of the connection module power cord to the receptacle on the AC adapter. Then, plug the AC adapter into an AC power outlet. If you're connecting a OneTouch® Flexx™ meter to the workstation using a serial cable, skip this step.

Make sure the green indicator light on the connection module is on.

- 2 Connect a phone cable from the connection module to the serial port connector. Then, connect the serial port connector to the workstation's serial port. If you're connecting a OneTouch® Flexx™ meter to the workstation, you may connect the serial cable (either the OneTouch® DataLink® serial cable or the serial cable in the cradle) between the meter and the workstation (as shown in insets).

▲ **WARNING:** Connect the phone cable to the serial port connector only. Failure to do so could result in electrical shock.

- 3 If applicable, connect the network patch cable from the workstation to the network jack.
- 4 Turn on the workstation.

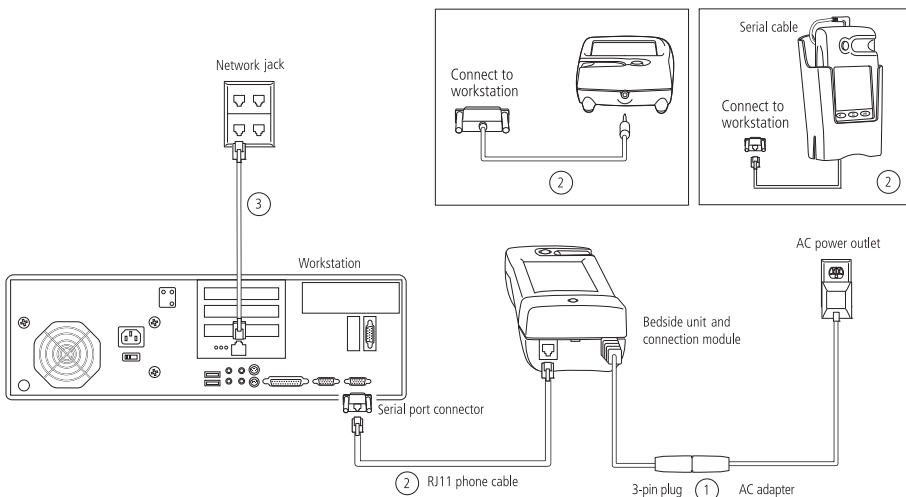


Figure 7 Connection module-to-workstation connection

Connecting a Receiving Modem to the Workstation

Follow this procedure to connect a receiving modem to the workstation (see Figure 8).

- 1 Set the switches on the back of the modem as follows:

1	2	3	4	5	6	7	8
down	up	up	down	up	up	down	up

- 2 Connect the power cord from the modem to an AC power outlet.
- 3 Connect a phone cable from the modem to an analog phone jack. The phone jack must be for a dedicated analog phone line.
- **NOTE:** The modem's jack is labeled with a wall plug icon on the bottom of the modem.
- 4 Connect the serial modem cable from the modem to the serial port on the workstation.
- 5 If applicable, connect the network patch cable from the workstation to the network jack.
- 6 Turn on the modem and workstation.

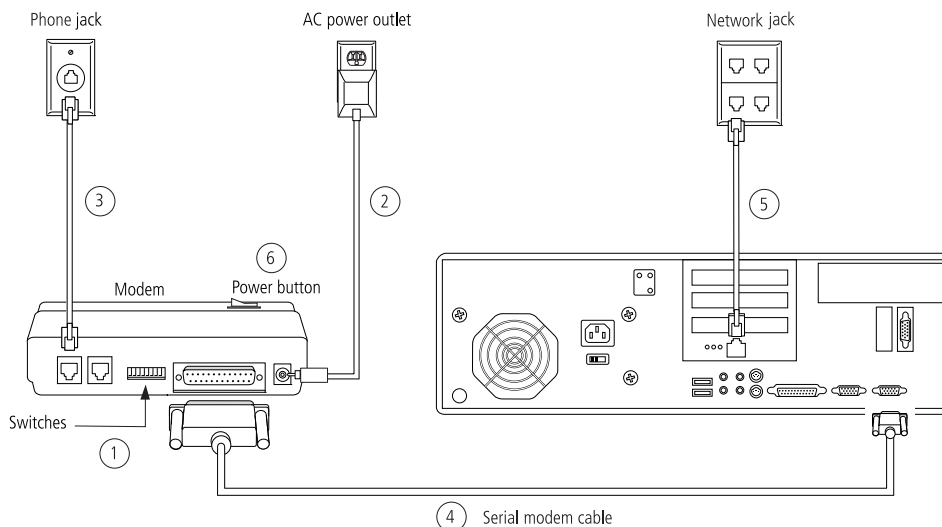
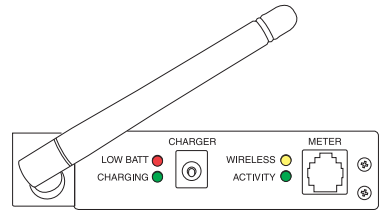


Figure 8 Modem-to-workstation connection

Wireless Communication

The OneTouch[®] DataLink[®] Wireless unit allows you to transfer data from a OneTouch[®] Flexx[™] meter to the workstation via a network enabled through wireless access. The meter plugs into a wireless unit located in the meter tote. Data is transmitted through access points installed on the network.



OneTouch[®] DataLink[®] Wireless unit

There are two versions of the wireless unit. The LifeScan part number for the version 1 unit is 02130201. The LifeScan part number for the version 2 unit is 02130202. The version 2 unit can be easily identified by its battery door. Version 1 units do not have a battery door.

▲ **WARNING:** Never immerse the battery, dispose of it in a fire, store it in direct sunlight, or attempt to disassemble it. Nickel Metal Hydride (NiMH) batteries contain a strong alkaline fluid that is extremely corrosive and will cause skin damage. If the battery leaks, properly dispose of it immediately. If the fluid gets in your eyes, flush them with copious amounts of water and seek medical attention.

The following table provides a description of the LEDs found on the wireless unit.

LED	Status	Meaning
LOW BATT (red)	steady	approximately 10% of battery capacity remaining (~20 minutes)
	off	sufficiently charged
	blinking	hardware error detected, see error table on page 37
CHARGING (green)	steady	fast charge is complete (continues with trickle charge)
	blinking	unit is fast charging
WIRELESS (yellow)	steady	wireless connection established
	blinking	searching for wireless connection
ACTIVITY (green)	steady	active TCP (OneTouch [®] MeterLink [™]) connection
	off	no TCP (OneTouch [®] MeterLink [™]) connection
	blinking	software error detected, see error table on page 37

■ **NOTE:** If you need to reload the wireless unit's firmware, or in the event of an upgrade, LifeScan will assist you with obtaining the correct version, as well as installation instructions.

Setting Up the Wireless Unit

You must set up and configure the wireless unit before using it to transfer data. Units can be configured from any computer. Charge the wireless unit before setting it up.

- 1 Connect a phone cable to the serial port connector. Then, connect the serial port connector to the workstation's serial port.
- 2 Open a HyperTerminal session in Windows.
- 3 Click Restore Defaults on the Port Settings screen. The COM properties for the port should be:
 - Bits Per Second = 9600
 - Data Bits = 8
 - Parity = None
 - Stop Bits = 1
 - Flow Control = None
- 4 Connect the charger to the wireless unit. Then, plug the charger into an AC power outlet.
- 5 While holding down the X key on the keyboard (ensure Caps Lock is off), connect the other end of the phone cable (from step 1) to the Setup jack on the side of the wireless unit.
- 6 Press Enter when prompted.

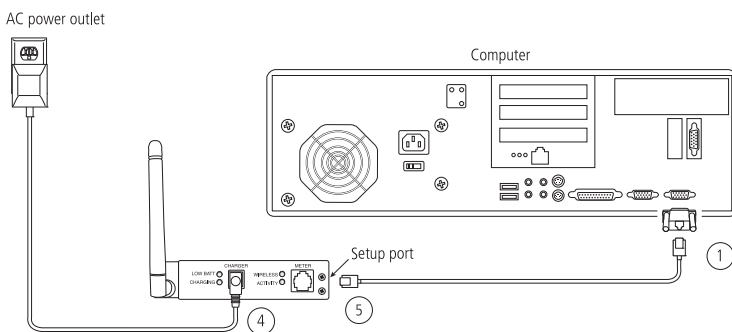


Figure 9 Setting up the OneTouch[®] DataLink[®] Wireless unit

Configuring Network Parameters and Channel Settings

Perform the following steps with the wireless unit still connected to the computer.

- 1 From the Change Setup menu, select option 0 and press Enter.
- 2 Continue with the appropriate instructions below depending on whether you are using static IP addresses or DHCP.

For a Static IP

- Enter the IP address for the wireless unit.
- Enter the Gateway IP address.
- Define the Netmask: Number of Bits for Host Port.

Network Class	Host Bits	Netmask
A	24	255.0.0.0
B	16	255.255.0.0
C	8	255.255.255.0

- Change the default Telnet password, if you wish.

For DHCP

- Enter 0.0.5.0 for the IP address fields to disable the BOOTP and improve response time.
- If not supplied by the DHCP Server, enter the Gateway IP address.
- Define the Netmask: Number of Bits for Host Port.

Network Class	Host Bits	Netmask
A	24	255.0.0.0
B	16	255.255.0.0
C	8	255.255.255.0

- Change the default Telnet password, if you wish.
- Change the DHCP device name, if you wish.
- **NOTE:** The DHCP name defaults to CXXXXXXX, where XXXXXX is the last six digits of the MAC address for the wireless unit. Use alphanumeric characters only. The system does not accept special characters such as (–), (/), (\), (#), (:), (;), (@), (space). Domain names are not supported for device names.

3 Select option 2—Channel 2 configuration, and set the following options:

- Baud rate = 19200
- I/F (Interface) mode = 4C (RS-232, 8 Bit, No Parity, 1 Stop Bit)
- Flow control = 00 (no flow)
- Enter the port number (10002 is default for wireless unit)
- ConnectMode option = C1
- (for version 2 only of wireless unit) Send ‘+++’ in Modem Mode = N
- (for version 2 only of wireless unit) Show IP addr after ‘RING’ = N
- Auto increment source port = N

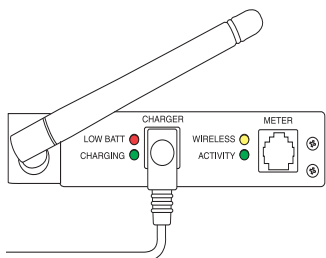
- Remote IP address = address of OneTouch[®] MeterLink[™]
 - Remote Port = 3001
 - DisConnMode = 00
 - FlushMode = 00
 - DisConnTime = 00:60
 - SendChar1 & SendChar2 = 00
- 4 Select option 4—WLAN to configure your institution’s wireless network’s parameters.
- **NOTE:** Because each institution’s settings are unique, consult with your network administrator to find the appropriate settings for the following parameters: Topology, Network name, Security Suite, Encryption, and Data Rate.
- 5 Select option 9 and press Enter.
- ◆ **IMPORTANT:** Ensure step 5 is completed or changes will not be saved.
- 6 Unplug the cable from the setup port when you are finished.

Charging the Wireless Unit

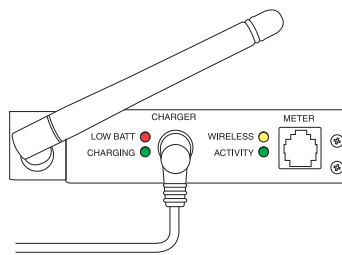
Charge the battery before using the unit for the first time, when the LOW BATT LED illuminates steady red, and after replacing the battery (version 2 only). Although you can continue to use the unit when the LOW BATT LED is on, a successful data transfer session may not be possible. Perform the charge at 0–30°C in a well ventilated room. If charging multiple units, do not stack. Allow 2 inches between units.

To optimize the battery life, use the wireless unit until the LOW BATT LED illuminates steady red. Do not leave the unit completely drained of battery power for longer than 1 month. Doing so may require reforming of the battery.

▲ **CAUTION:** Use only the charger provided by LifeScan. Note that version 1 and version 2 units require their own unique chargers.



Version 1 of wireless unit and charging adapter.



Version 2 of wireless unit and charging adapter.

Charging a Version 1 Wireless Unit

Do Not use the version 1 units for data transfer until charging is complete.

- 1 Plug the charging adapter into the charger receptacle on the front of the wireless unit.
- 2 Plug the other end of the charging adapter into an AC power outlet.

▲ **CAUTION:** Do Not crimp the charging adapter cable—either leave the tote lid open during charging or remove the wireless unit from the tote.

Charging is indicated by a blinking CHARGING LED. When charging is complete, the LED illuminates steady green. At this point, the unit is sufficiently charged and ready for use.

- 3 When charging is complete, unplug the charger from the unit.

Charging a Version 2 Wireless Unit

You can continue using the version 2 wireless unit for data transfer while it is charging.

- 1 Plug the charging adapter into the charger receptacle on the front of the wireless unit.
- 2 Plug the other end of the charging adapter into an AC power outlet.

▲ **CAUTION:** Do Not crimp the charging adapter cable—either leave the tote lid open during charging or remove the wireless unit from the tote.

Charging is indicated by a blinking CHARGING LED. When charging is complete, the LED illuminates steady green. It takes approximately 5.5 hours to charge a drained battery to full capacity. Each hour of charging yields approximately 1.5 hours of continuous data transferring.

- 3 When charging is complete, you can unplug the charger from the unit, or leave it plugged in to keep the unit at a full charge.

Reforming the Wireless Unit Battery

The wireless unit contains a nickel metal hydride (NiMH) battery pack that may require reformation after long-term storage or if it will not hold a charge. Reforming is a process of repeated cycles of charging and discharging to restore the battery to normal operating condition.

If you observe that the wireless unit does not hold a charge, reform the battery. Perform the procedure at 0–30°C in a well ventilated room. If reforming multiple units, do not stack. Allow 2 inches between units.

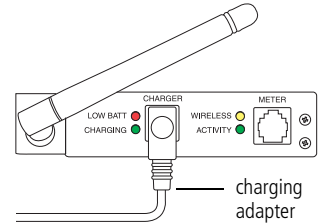
Reforming a Version 1 Wireless Unit Battery

The reforming process for version 1 units involves a series of charges of progressively longer duration. This process may take as long as 90 minutes, depending on the state of the battery.

- 1 Charge the battery by plugging the charging adapter into the charger receptacle on the front of the wireless unit (as shown).**

Ensure the other end of the charging adapter is plugged into an AC power outlet.

Charging is indicated by a blinking CHARGING LED.



- 2 When the CHARGING LED illuminates steady green, unplug the charging adapter from the wireless unit and wait approximately 30 seconds.**

If, during charging, the CHARGING LED blinked for an hour or more before changing to steady green, the reformation process is complete. The wireless unit is ready for use.

- 3 Repeat steps 1 and 2 six consecutive times.**

- **NOTE:** Upon completion, the wireless unit will have approximately 30 continuous minutes or more of charge capacity and will be ready for normal use. Charge capacity will continue to increase with subsequent normal usage and charging cycles.

Reforming a Version 2 Wireless Unit Battery

The reforming process for version 2 units involves a series of 14 on/off cycles. The procedure can be automated with the use of a timer. For optimal results start the procedure at 6 pm and allow the unit(s) to charge overnight for the last (14th) cycle.

- 1 Set the unit(s) up for charging (see Figure 10 on page 22).**

- Plug the charging adapter into the charger receptacle on the front of the wireless unit(s).
- Plug the other end of the charging adapter into an AC power strip.
- Plug the power strip into the timer.
- Plug the timer into an AC power outlet.
- Plug one end of a phone cable into the wireless unit's meter port.
- Plug the other end of the phone cable into the unit's setup port.

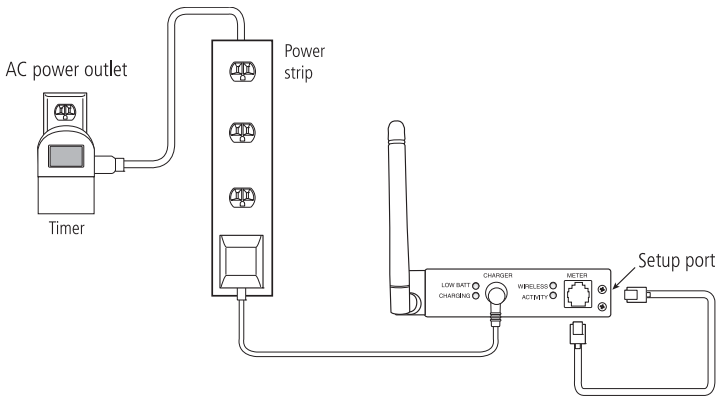


Figure 10 Setting up version 2 of the wireless unit for reforming

2 Follow the timer instructions to program the on/off cycles listed in Table 1.

Set the timer to four cycles of 5 minutes on and 1 minute off, then three cycles of 15 minutes on and 3 minutes off, then six cycles of 30 minutes on and 10 minutes off. The final cycle (14) is set to on with no off. Allow the unit to charge overnight (at least 8 hours) in the final cycle.

Table 1: Charge/Discharge Times for 14 Cycles

Cycle	On/Off Duration
Cycle 1	5 min / 1 min
Cycle 2	5 min / 1 min
Cycle 3	5 min / 1 min
Cycle 4	5 min / 1 min
Cycle 5	15 min / 3 min
Cycle 6	15 min / 3 min
Cycle 7	15 min / 3 min
Cycle 8	30 min / 10 min
Cycle 9	30 min / 10 min
Cycle 10	30 min / 10 min
Cycle 11	30 min / 10 min
Cycle 12	30 min / 10 min
Cycle 13	30 min / 10 min
Cycle 14	charge overnight

Cleaning the Wireless Unit

Clean the wireless unit if dirt or blood is present, or as defined by your institution’s infection control policies.

1 Clean the exterior of the unit, including the seams along the battery door, using a cloth moistened with a 10% bleach solution. Follow with a cloth moistened with water to remove residual bleach.

■ **NOTE:** For a complete list of approved cleaning agents, refer to the Specifications section of the *SureStepFlexx Meter Operator’s Guide*.

2 Dry the unit thoroughly.

▲ **CAUTION:** Do Not get water inside the wireless unit. Never immerse the unit or hold it under running water.

Replacing the Wireless Unit Battery

This procedure applies only to version 2 of the wireless units. After replacing the battery, you must charge it.

- ▲ **CAUTION:** Use only the Lantronix NiMH (#510-005) battery pack (order from LifeScan, part number 02172001A). Using any other battery pack will void the warranty and can damage the wireless unit.

LifeScan recommends recycling NiMH batteries. Contact your local Rechargeable Battery Recycling Corporation (RBRC) or visit www.rbrc.org for information.

- 1 Turn the unit over and remove the two screws on the battery door.
- 2 Lift up on the door to remove it.
- 3 Disconnect the battery's 5-pin connector plugged into the wireless unit. If necessary, use a small, flat-head screwdriver to pry up on the edge of the connector. Remove the battery.

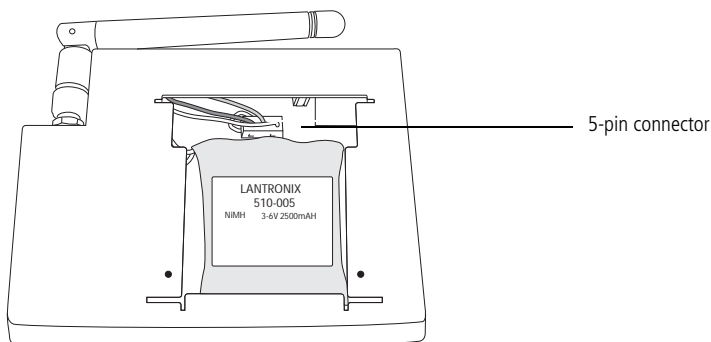


Figure 11 Battery pack in version 2 of wireless unit

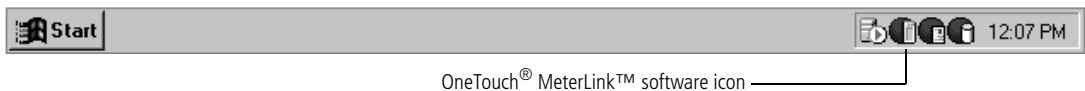
- 4 Install the new battery by first plugging in the connector (it fits in one orientation only), then placing the battery, label up, in the compartment. Tuck in the battery wires in the space above the battery to the left of the connector (see Figure 11).
- 5 Replace the battery door by aligning the screw holes. Avoid pinching the wires.
- 6 Replace the screws.
- 7 Follow the instructions for charging the battery.

Establishing Connectivity Using OneTouch[®] MeterLink[™] Software

OneTouch[®] MeterLink[™] is an application that provides connectivity between the meters and the OneTouch[®] DataLink[®] application via a network, modems, or locally through the workstation's serial port. The software opens a local serial port to the workstation and a TCP/IP socket to each PC server or network device (serial server, terminal server, or serial client) providing dedicated communication. OneTouch[®] MeterLink[™] software must be running to transfer data between the meters and the workstation.

OneTouch[®] MeterLink[™] Application Window

OneTouch[®] MeterLink[™] software launches automatically when you turn on the computer; however, the application window is hidden. To open the window, double-click the OneTouch[®] MeterLink[™] icon in the notification tray of the taskbar. If you wish to hide the window, click the window's minimize button or select Hide Application from the View menu.



▲ **CAUTION:** Do Not quit OneTouch[®] MeterLink[™] software. It must be running on the workstation to establish connections between the meters and the workstation.

■ **NOTE:** The menu options, icon descriptions, and dialog boxes displayed will vary depending on the version of OneTouch[®] MeterLink[™] software you are using.

Connection List

OneTouch[®] MeterLink[™] software displays a list of all connections and the status of each in a connection list. You may add/remove, edit, or halt/restart a connection using the Connection menu available in Administrator Access mode. Refer to “Administrator/Viewer Access Mode” on page 26. OneTouch[®] MeterLink[™], version 3.2 and earlier, allows you to add up to 256 server connections. OneTouch[®] MeterLink[™], version 3.3, allows you to add up to 500 connections, 200 of which can be server connections.

■ **NOTE:** Once you've added all connections and established that the list of connections is complete and accurate, save the list to an ASCII text file by selecting Save

Connection List Report from the File menu. Print the list and keep it for reference.

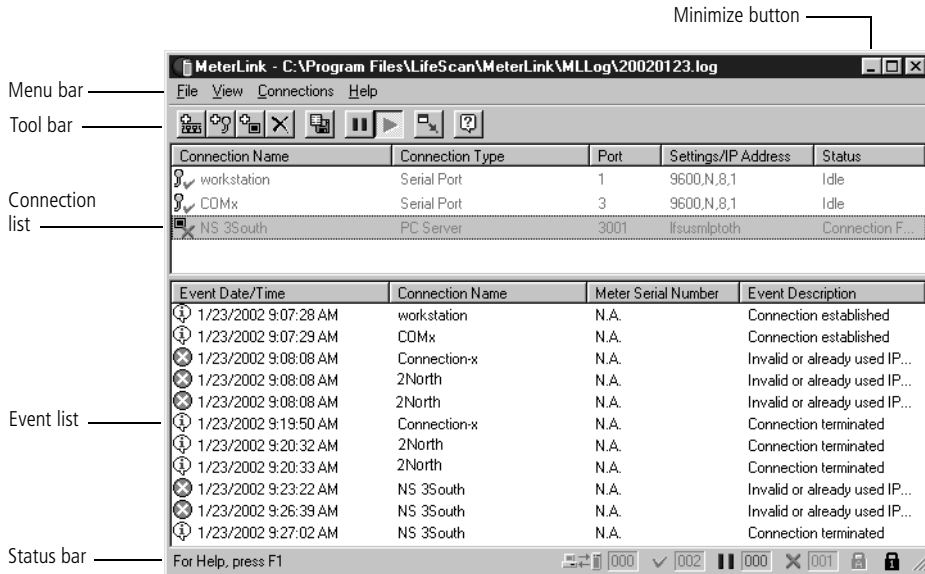



Figure 12 OneTouch® MeterLink™ software window

The MtrLink.ini file, located in the C:\Program Files\LifeScan\MeterLink directory, contains information for all connections that have been added. Once you have established the connection list, save a copy of the MtrLink.ini file to a safe location on a separate storage device. In the event you need to restore the file, contact LifeScan for assistance.

Event List

Below the connection list is the event list, which displays the date, time, and description of the recorded events for each connection. Events may include establishing, halting, restarting, or removing a connection, as well as transferring data. Each event is preceded by an icon.

 – indicates the event is a normal occurrence.

 – indicates the event is an error or failure.

NOTE: An error event is normal for the wireless unit in power-saving mode.

After 400 events, the software automatically replaces the oldest event with a new event on a first-in-first-out basis. You can scroll through the list to see each event and description.

The software also creates a daily log file. The file contains a list of all events that occurred on that day. The files are named by the date they were created, for example, 20020123.log

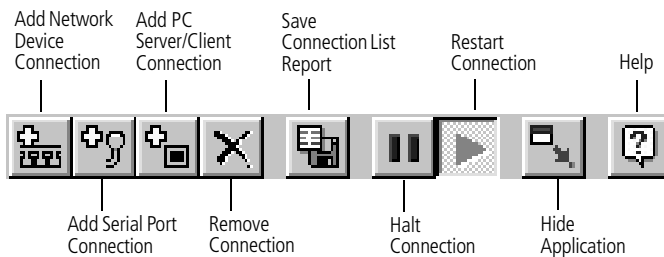
(YYYYMMDD format) and are located in the C:\Program Files\LifeScan\MeterLink\MLog directory. The window's title bar displays the current event log name and path.

■ **NOTE:** Certain event descriptions, for example, error messages, may be truncated within the event list, making them difficult to interpret. To see an error message in its entirety, refer to the log file. A description of the most common error messages can be found in the Troubleshooting section.

Tool Bar

The tool bar contains the same commands that are found in the menu bar. Place the cursor over an icon in the tool bar to display a description of the icon.

■ **NOTE:** The icon descriptions will vary depending on the version of OneTouch[®] MeterLink[™] software you are using.



▲ **CAUTION:** Do Not edit a connection during an active communication session. For example, halting or removing a connection during communication may result in unstable communications for subsequent sessions.

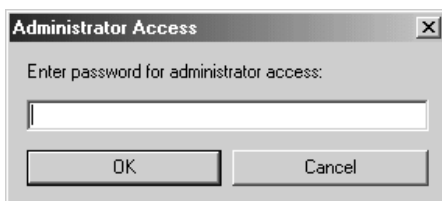
Administrator/Viewer Access Mode

OneTouch[®] MeterLink[™] software operates in two modes, Viewer Access mode and Administrator Access mode. When you start the computer, the program opens in Viewer Access mode.

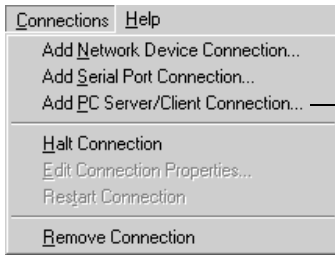
To execute the Administrator mode:

- 1 Select Administrator Access from the File menu.
- 2 Enter the password in the access dialog box.

The password was provided to you by a LifeScan representative during installation.



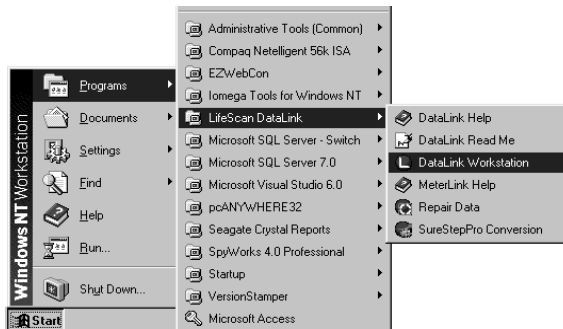
Administrator Access mode enables the Connections menu, which contains commands for adding, editing, halting, restarting, and removing connections.



Available in OneTouch® MeterLink™, version 3.2
(earliest version that supports OneTouch® DataLink® Sync)

To switch back to Viewer Access mode, select Viewer Access from the File menu or select Hide Application from the View menu—when you reopen the OneTouch® MeterLink™ window by double-clicking the icon in the notification tray, the window opens in Viewer Access mode.

You may quit OneTouch® MeterLink™ software from Administrator Access mode only. If you exit OneTouch® MeterLink™ software and wish to restart the application, click to open the Start menu, point to Programs, point to LifeScan DataLink, and then click DataLink Workstation.



▲ CAUTION: OneTouch® MeterLink™ software must be running to establish a network or serial port connection. If you quit OneTouch® MeterLink™, all connections are halted and meters cannot communicate with the workstation. Although no data is lost, no data will be transferred to the workstation.

Establishing a Connection with a Network Device

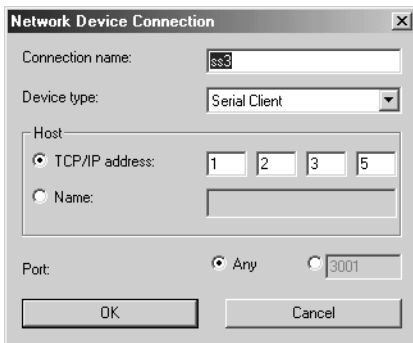
You must be in OneTouch® MeterLink™ Administrator Access mode to establish a network device (serial server, terminal server, wireless unit, or serial client) connection. Select Administrator Access from the File menu and enter the password.

1 Select Add Network Device Connection from the Connections menu.

The Network Device Connection dialog box appears. The dialog box may vary depending on the version of OneTouch® MeterLink™ you are using.

2 Enter information in each field:

- Enter up to 20 characters in the Connection name field. This field helps you identify the server (for example, *ICU Wireless* for a wireless connection).
- Select Serial Server, Terminal Server, or Serial Client from the Device type drop-down list. For a wireless unit, select Serial Client.
Once you select the device type you cannot change it. You must remove the connection and add a new one.
- Click TCP/IP address and enter an IP address for the network device. Or, if you are using DHCP to assign addresses, click Name and enter the name assigned to the network device.
- Select the port number, if necessary.
For a serial server, the number defaults to 3001.
For a terminal server, enter 3001–3008 (corresponding to ports 1–8).
For a serial client, select Any if the port number is dynamic or if you don't know the port number. If the device is configured with a specific port number, you may enter it (1024–65535). For a wireless unit the default is 10002. (Verify with your Network Administrator if this setting was changed. See the fourth bullet in step 3 under “For DHCP” starting on page 18.)



3 Click OK.

An entry is added to the connection list. After a few seconds, the status appears as:

- Idle (normal for a serial server or terminal server)
- Listening (normal for a serial client other than a wireless unit)
- Connection failed (normal status for a wireless unit in power-saving mode)

Additionally, the connection event is added to the event list and the log file.

Establishing a Connection with a PC Server/Client

You must have OneTouch[®] MeterLink[™] software, version 3.2 or later, and be in Administrator Access mode to establish a PC server connection. Select Administrator Access from the File menu and enter the password.

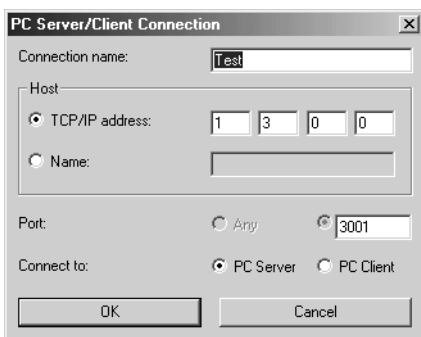
1 Select Add PC Server/Client Connection from the Connections menu.

The PC Server/Client Connection dialog box appears. The dialog box may vary depending on the version of OneTouch[®] MeterLink[™] you are using.

2 Enter information in each field:

- Enter up to 20 characters in the Connection name field to identify the PC.
- Click TCP/IP address and enter the static (or reserved) IP address for the PC. Or, click Name and enter the name assigned to the PC. If DHCP is used for assigning a variable IP address, select the computer name.
- Select the port number, if necessary.
For a PC Server, the number defaults to 3001.

This number must match the port number specified in the OneTouch[®] DataLink[®] Sync Network tab of the Properties window (see page 7).



3 Select PC Server for OneTouch[®] DataLink[®] Sync.

4 Click OK to establish the connection.

- **NOTE:** OneTouch[®] DataLink[®] Sync software must be running on the PC server to establish a connection.

An entry is added to the connection list. After a few seconds, the status for a PC server appears as Idle. Additionally, the connection event is added to the event list and the log file.

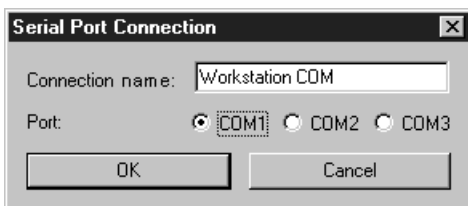
Establishing a Connection with the Workstation Serial Port

You must be in OneTouch® MeterLink™ Administrator Access mode to establish a serial port connection. Select Administrator Access from the File menu and enter the password.

- 1 Select Add Serial Port Connection from the Connections menu.

The Serial Port Connection dialog box appears.

- 2 Enter up to 20 characters in the Connection name field to identify the connection.
- 3 Select the workstation COM port where the connection will be established.



- 4 Click OK to establish the connection.

An entry is added to the connection list. After a few seconds, the status appears as Idle. Additionally, the connection event is added to the event list and the log file.

Transferring Data

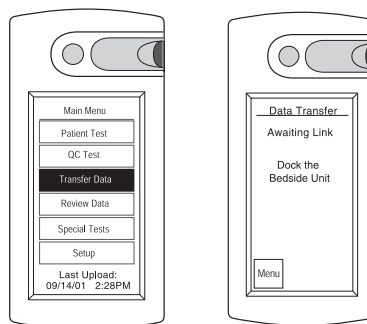
SureStepPro® Bedside Unit

Follow this procedure to transfer data between the SureStepPro® bedside unit and the workstation using the connection module.

- **NOTE:** You must perform a bedside unit's initial configuration at the workstation's connection module or through an Ethernet connection. You cannot use the modem-to-modem configuration until the initial bedside unit configuration is performed.

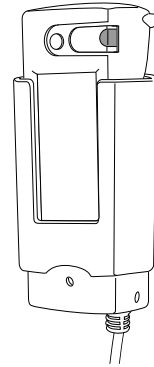
- 1 Turn on the bedside unit and press Cont at the Status screen.
- 2 Select Transfer Data from the Main Menu.

A message appears informing you to dock the bedside unit in the connection module.



3 Place the bedside unit in the connection module.

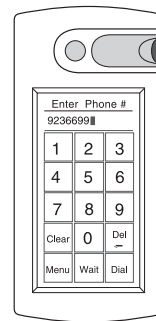
- If you have an Ethernet configuration, data is automatically transferred to the workstation through the network.
- If a modem is detected, the connection module automatically dials the receiving modem (provided the number was downloaded to the bedside unit from the workstation, or entered at the bedside unit). If the line is busy, the connection module will retry up to 20 times at 30-second intervals before it times out.



- **NOTE:** If you are sharing the modem with a fax machine, do not start a data transfer session if a fax is being sent or received—the two cannot occur simultaneously.

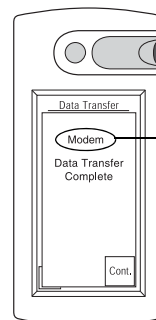
If the receiving modem phone number was not downloaded to the bedside unit from the workstation, the Enter Phone # screen appears.

Enter the phone number for the receiving modem, then press Dial.



Messages appear on the screen indicating the status of the connection.

The indicator light on the connection module blinks during the transfer of data. A message appears when data transfer is complete.



Appears for modem transfer only.

4 Remove the bedside unit from the connection module cradle and press Cont.

- **NOTE:** If the bedside unit is off when you remove it from the connection module, you can verify that the transfer was successful by turning on the bedside unit. If an error occurred during transfer, the following message appears after the status screen: *Last Data Transfer mm/dd/yy hh:mm Failed*. Additionally, the bedside unit displays the date and time of the last successful upload at the Main Menu.

OneTouch® Flexx™ Meter

The following procedures explain how to transfer data between the OneTouch® Flexx™ meter and the workstation, using a connection module, a serial cable, or the OneTouch® DataLink® Wireless unit.

Using a Connection Module

A connection module allows you to transfer data from remote locations, either through modems or over a network. When the meter is placed in the connection module, the infrared ports on the meter and connection module are aligned and data is transferred via infrared communication.

The connection module may be connected to a PC server, serial server/client, modem, or directly to the workstation's serial port.

- **NOTE:** If you are transferring data over a modem and a fax machine is sharing the same analog line as the modem, do not transfer data while a fax is being sent or received.

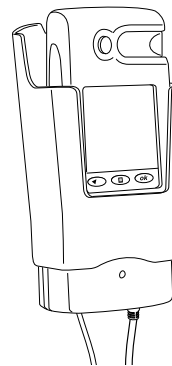
1 Place the meter into the connection module cradle.

The connection module turns on the meter.

- If you have an Ethernet configuration, data is automatically transferred to the workstation through the network.
- If a modem is detected, the connection module automatically dials the receiving modem (provided the number was downloaded to the meter from the workstation, or entered at the meter).
If the line is busy, the connection module retries up to 20 times at 30-second intervals before it times out.

If the receiving modem phone number was not downloaded to the meter from the workstation, the Enter Phone # screen appears.

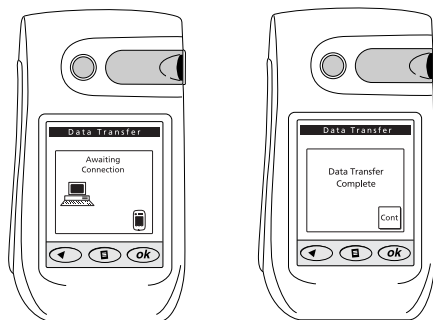
Enter the phone number for the receiving modem, then press Ok.



connection module and cradle



Messages appear on the screen indicating the status of the transfer. The meter beeps and a message appears when data transfer is complete.



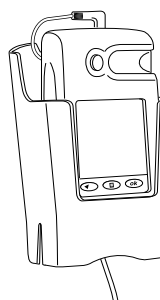
2 Remove the meter from the connection module cradle and press Cont.

If the meter is off when you remove it from the connection module, you can verify that the transfer was successful by turning on the meter. If an error occurred during the transfer, the following message appears after the status screen: *Last Data Transfer mm/dd/yy hh:mm Failed*. Additionally, the status of the last upload appears at the status screen.

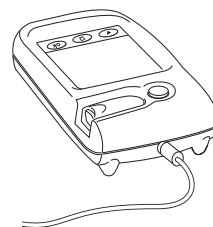
Using a Serial Cable

A serial cable may be used to transfer data between the meter and the workstation. Use the built-in serial cable in the cradle to connect to a PC server, serial server/client, modem, or the workstation's serial port. Or, use the OneTouch[®] DataLink[®] serial cable for a direct connection to the workstation.

1 Connect the serial cable (either the OneTouch[®] DataLink[®] serial cable or the cable in the cradle) to the meter.

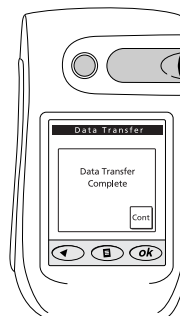


serial cable in cradle



serial cable

Messages appear on the screen indicating the status of the transfer. The meter beeps and a message appears when data transfer is complete.



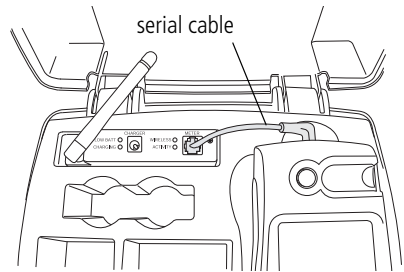
2 Unplug the serial cable from the meter and press Cont.

If the meter has turned off, you can verify that the transfer was successful by turning on the meter. If an error occurred during the transfer, the following message appears after the status screen: *Last Data Transfer mm/dd/yy hh:mm Failed*. Additionally, the status of the last upload appears at the status screen.

Using a Wireless Unit

1 Perform a glucose test.

- If the meter is in the tote and connected to the wireless unit, data transfer begins automatically at the completion of each test.
- If you are testing with the meter outside the tote, plug the meter into the wireless unit using the serial cable. The meter turns on automatically and data transfer begins.



■ **NOTE:** It is not recommended to lift the antenna during data transfer.

A steady green ACTIVITY LED indicates communication with OneTouch[®] MeterLink[™].

2 Following data transfer:

- To continue testing with the meter connected to the wireless unit, turn off the meter and turn it on again.
- To continue testing with the meter outside the tote, remove the serial cable from the meter and press Cont if the meter is still on.

■ **NOTE:** When you turn on the meter while it is connected to the wireless unit or when you plug the meter into the wireless unit using the serial cable, you have approximately 15 seconds from the time the main menu appears until you need to select an option before the meter automatically attempts a data transfer.

If the meter has turned off, you can verify that the transfer was successful by turning on the meter. If an error occurred during the transfer, the following message appears after the status screen: *Last Data Transfer mm/dd/yy hh:mm Failed*. Additionally, the status of the last upload appears at the status screen.

After approximately 60 seconds or when communication has finished, the wireless unit will go into a power-saving mode.

Troubleshooting

OneTouch® MeterLink™ Event Errors

Following is a list of the more common OneTouch® MeterLink™ event errors.

Error Message	Cause	Solution
Connection reset by peer	<ol style="list-style-type: none"> 1. PC server was turned off, or the user logged off or exited OneTouch® DataLink® Sync. 2. The network device is turned off or disconnected. 	<ol style="list-style-type: none"> 1. Check the PC server to ensure that it is turned on, connected to the network device, and that OneTouch® DataLink® Sync is running. 2. Check the network device to ensure it is turned on and connected to the network.
Failed to locate client	<ol style="list-style-type: none"> 1. OneTouch® MeterLink™ cannot ping the serial client. 2. Wireless unit may be in power-saving mode. 	<ol style="list-style-type: none"> 1. Check the serial client to make sure it is turned on and connected. Verify that the IP address/name is correct. 2. This is normal behavior if the serial client is a wireless unit in power-saving mode.
Graceful shutdown in progress	<ol style="list-style-type: none"> 1. PC server was turned off, or the user logged off or exited OneTouch® DataLink® Sync. 2. The network device is turned off or disconnected. 	<ol style="list-style-type: none"> 1. Check the PC server to ensure that it is turned on, connected to the network device, and that OneTouch® DataLink® Sync is running. 2. Check the network device to ensure it is turned on and connected to the network.
Invalid or already used IP address/port	Connection could not be established with specified IP address/name and specified port (if not "Any").	Check the serial server or terminal server to make sure it is turned on and connected. Verify that the device's IP address or name was correctly entered in OneTouch® MeterLink™.

Meter Error Messages

Error Message	Cause	Solution
<p>Awaiting Communications Link</p> <p>(This message may also indicate meter status.)</p>	<ol style="list-style-type: none"> 1. Modem not detected. 2. Connection module or meter modem hardware error. 	<ol style="list-style-type: none"> 1. Make sure: <ol style="list-style-type: none"> a. The meter is docked in the connection module. b. The phone cable is securely connected between the connection module and modem. c. The connection module is plugged in. d. The modem is plugged in and turned on. e. The modem switches are set properly. 2. Contact LifeScan.
Check Connections at Meter	Modem detected but link was broken.	Make sure meter is positioned in the connection module. Do not move the meter until the transfer is complete.

Error Message	Cause	Solution
Check Connections at Workstation	<ol style="list-style-type: none"> 1. No connection established after five retries because of "no carrier" error. 2. Wrong phone number entered at meter. 3. Workstation modem hardware error. 	<ol style="list-style-type: none"> 1. Make sure: <ol style="list-style-type: none"> a. The workstation modem is plugged in and turned on. b. The workstation modem is connected to the wall phone jack. 2. Enter the correct receiving modem phone number. 3. Contact LifeScan.
Check Phone Line Connections at Meter	<ol style="list-style-type: none"> 1. No connection established after five retries because no dial tone was detected. 2. Phone line error. 	<ol style="list-style-type: none"> 1. Make sure: <ol style="list-style-type: none"> a. The meter modem phone line is not being used by another device, for example a fax machine. b. The modem is connected to the wall phone jack. 2. Have telephone line inspected.
Data Transfer Connection Lost	Meter connection broken or interrupted during data transfer.	Do not remove meter from connection module or serial cable until data transfer is complete.
Invalid Phone Number	Phone number entered is not valid.	Phone number was not entered, or more than four pause characters were entered.
Meter Disabled	Meter deleted from system or unassigned.	Contact system administrator for current status of meter. Assign meter to location, then perform data transfer with workstation.
Meter Not Recognized by Workstation	Meter not part of OneTouch [®] DataLink [®] system.	Contact system administrator to add meter to system.
Modem not Supported	Modem model not supported by software.	Use recommended modem. Contact LifeScan for modem models supported.
Phone Line Busy at Workstation	<ol style="list-style-type: none"> 1. No connection established after 20 retries because of busy signal. 2. Receiving modem phone line being used by a fax machine. 3. Phone line error. 	<ol style="list-style-type: none"> 1. Multiple meters are attempting to communicate simultaneously with the workstation. 2. Receiving modem phone line must be a dedicated line. Do not share line with a fax machine. 3. Have telephone line inspected.

Wireless Unit LED Error Conditions

Following is a list of the wireless unit indicator light error conditions. If you encounter any of the hardware or software conditions, contact LifeScan's Health Care Professional Line at 1 800 524-7226.

LED	Status	Meaning
LOW BATT (red)	blinking 3 times in 4 seconds	Hardware error: network controller
	blinking 4 times in 4 seconds	Hardware error: MAC address
ACTIVITY (green)	blinking 5 times in 4 seconds	Software error: duplicate IP address present
	blinking 6 times in 4 seconds	Software error: no DHCP response
WIRELESS (yellow) LOW BATT (red)	both LEDs blink sporadically	Wireless unit needs to be charged

Wireless Unit

Problem	Cause	Solution
Wireless unit will not hold a charge.	Battery low after long-term storage.	Wireless unit battery requires reformation. Refer to "Reforming the Wireless Unit Battery" on page 20. If you continue to have problems, repeat the reformation procedure.
Meter times out and will not communicate	<ol style="list-style-type: none"> DHCP name contains invalid characters. Security set improperly. DHCP name resolution taking too long. Slow transmission speed. Problem with connection to workstation. 	<ol style="list-style-type: none"> Ensure that the DHCP name contains alphanumeric characters only. The system does not accept special characters, such as (-), (/), (\), (#), (:), (;), (space). Ensure that the security parameters and authentication of your wireless network are properly entered into the wireless unit. If the unit has trouble authenticating to your access points, settings such as Encryption, MAC Filtering, Open System/Shared Key authentication, as well as incorrect casing of SSID are common areas to review. Ensure the IP address field for DHCP is set to 0.0.5.0. Refer to "Configuring Network Parameters and Channel Settings" on page 17. Ensure that the Data Rate setting is optimized for your network. Refer to "Configuring Network Parameters and Channel Settings" on page 17. Refer to the "Ethernet Connection from the Workstation" troubleshooting table on page 40.

Ethernet Connection from the PC Server

If you are not able to successfully transfer data between the meter, connected to the PC server, and the workstation, open OneTouch[®] MeterLink[™] software at the workstation and verify that the list of connections is correct. Then proceed through the following possible causes and solutions. If you still cannot resolve the problem, proceed to “Ethernet Connection from the Meter Location” on page 39 to rule out problems with hardware or hardware connections.

Problem	Cause	Solution
Cannot transfer data between the meter (connected to a PC server) and the workstation	<ol style="list-style-type: none"><li data-bbox="384 427 684 487">1. OneTouch[®] DataLink[®] Sync is not installed on the PC.<li data-bbox="384 618 684 678">2. OneTouch[®] DataLink[®] Sync is not running on the PC.	<ol style="list-style-type: none"><li data-bbox="700 427 1229 574">1. Follow the instructions “Installing OneTouch[®] DataLink[®] Sync Software on a PC Server” on page 4. Then, proceed to “Using OneTouch[®] DataLink[®] Sync Software” on page 6 for information on configuring the software.<li data-bbox="700 618 1229 763">2. OneTouch[®] DataLink[®] Sync starts automatically when you start your PC. Do not exit the program. It must be open to allow communication to occur. If you need to restart the program, double-click the application icon on the desktop.

Ethernet Connection from the Meter Location

If you are not able to successfully transfer data between the meter and the workstation, and you have established that all network connections and settings are valid, proceed through the following flow chart to eliminate any problems with hardware or hardware connections.

Problem	Cause	Solution
<p>Cannot transfer data over a network, from the meter to the workstation</p>	<ol style="list-style-type: none"> 1. Meter battery power is low. 2. Meter has old version of software. 3. OneTouch[®] MeterLink[™] is not open and running at the workstation. 4. Loose hardware or power connection. 5. Problem with meter. 6. Data transfer was interrupted because a meter button was pressed. 	<ol style="list-style-type: none"> 1. Check the meter battery status to ensure adequate power. The meter's battery power may be too low to operate the barcode scanner. If this happens the Scan button does not appear on the data entry screens. Replace the batteries if necessary. If you are using a SureStepPro[®] bedside unit with a connection module, turn on the bedside unit and select Transfer Data from the Main Menu before placing the unit in the connection module. 2. Upgrade meter software. 3. Call the lab to see if OneTouch[®] MeterLink[™] is running. Ensure the list of connections is correct. 4. Check the connection module and serial or terminal server connections and power plugs. If using a wireless unit, ensure serial cable is securely connected between meter and wireless unit. Ensure all connections are secure. 5. Try another meter in the connection module or tote (if using a wireless unit). If it works, there may be a problem with the meter. Contact LifeScan's Health Care Professional Line at 1 800 524-7226. 6. Once communication begins do not attempt any other operations. Allow data transfer to complete.

Ethernet Connection from the Workstation

If you are not able to successfully transfer data between the meter and the workstation over a network, open OneTouch[®] MeterLink[™] software at the workstation and verify that the list of connections is correct. Then proceed through the following possible causes and solutions. If you still cannot resolve the problem, proceed to “Ethernet Connection from the Meter Location” on page 39 to rule out problems with hardware or hardware connections.

Problem	Cause	Solution
<p>Cannot receive data at the workstation when transferring from a meter over a network</p>	<ol style="list-style-type: none"> 1. The network connection was lost. 2. OneTouch[®] MeterLink[™] is displaying the connection as red, indicating an error. <i>NOTE:</i> This is normal behavior for the wireless units. 3. The serial port and/or network device configuration settings in OneTouch[®] MeterLink[™] are incorrect. 4. The IP address/name was not entered correctly in OneTouch[®] MeterLink[™]. 5. If you have a DHCP server, the IP addresses are dynamic. 6. Network problems. 	<ol style="list-style-type: none"> 1. Check all hardware connections to ensure they are secure. 2. Halt the connection, then restart it. Refer to the Event Description in OneTouch[®] MeterLink[™] for details on the error. 3. Check the serial port and network device configuration settings in OneTouch[®] MeterLink[™]. Edit, if necessary. Try transferring data again. 4. Assign or reset the IP address. Ping the server to verify that the IP address is correct. If you can successfully ping the server, reboot it by turning it off, then on. Try transferring data again. See also #5 below. 5. Enter the name for the server, instead of the IP address. You may also disable DHCP so that IP addresses are static. If you continue to have problems, enter the fully qualified domain name (FQDN). 6. If the IP address is correct and you tried pinging the server but were unsuccessful, try pinging another device on the network. If you cannot ping the device, contact your network administrator. If you continue to have problems, contact LifeScan's Health Care Professional Line at 1 800 524-7226.

Specifications

Connection Module

Dimensions and weight:
connection module

width 3.5 in
length 2.25 in
height 2.75 in
weight 5.6 oz (without cables)

wall mount cradle

	<u>SureStepPro[®]</u>	<u>OneTouch[®] Flexx[™]</u>
width	4.10 in	4.21 in
depth	2.87 in	2.89 in
height	5.95 in	6.76 in
weight	4.0 oz	4.7 oz

Power supply: 120V ±10%, 60 Hz

Operating temperature: 15°–35°C (59°–95°F)

Operating humidity: up to 90% relative humidity (noncondensing)

Communication status indicator:

- | | |
|------------------------------|----------------|
| 1. Ready/standby | solid green |
| 2. Communication in progress | flashing green |
| 3. Power failure | no light |

RS-232 compliant signals:

Serial Data Transmit
Serial Data Receive
Data Terminal Ready
Common (ground)

OneTouch[®] DataLink[®] complies with the following standards:

- CAN/CSA–C22.2 No 950-95 Safety of Information Technology Equipment, Including Electrical Business Equipment (3rd Edition)
- UL 1950–95 Safety of Information Technology Equipment, Including Electrical Business Equipment (3rd Edition)


Wireless Unit

Dimensions and weight:	width 4.3 in depth 0.9 in height 3.5 in (including antenna) weight 13 oz (without serial cable)
Operating temperature:	0°–50°C
Operating humidity:	up to 95% relative humidity (noncondensing)
Wireless:	OneTouch [®] DataLink [®] Wireless unit is 802.11b (version 1 unit) and 802.11g (version 2 unit) standard compliant which ensures it is interoperable with existing 802.11b/g environments.

The wireless unit complies to the following standards:

- UL 60950-1 UL Standard for Safety of Information Technology Equipment
- CAN/CSA C22.2 No 60950-1-03 Safety of Information Technology Equipment
- CFR Title 47 FCC Part 15, Subpart 15, Class B
- FCC Part 15, Subpart B, Class B
- Industry Canada ICES-003, Issue 4 (2004), Class B


FCC/IC NOTICE:

This device meets the body worn human exposure limits found in OET Bulletin 65, 2001, and ANSI/IEEE C95.1, 1992. Proper operation of this radio according to the instructions found in this guide will result in exposure substantially below the FCC's recommended limits. To comply with the FCC and ANSI C95.1 RF exposure limits, this device has been tested for compliance with FCC RF Exposure (SAR) limits in the typical configuration. It is recommended that the antenna must not be co-located or operating in conjunction with any other antenna or radio transmitter. 

NOTE: The radiated output power of this wireless device is far below the FCC radio frequency exposure limits. Nevertheless, this device should be used in such a manner that the potential for human contact (ie, touching the wireless unit) during normal operation is minimized.

NOTE: LifeScan and Lantronix are not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

THIS MODEL DEVICE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES:

Your wireless device is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. Tests for SAR are conducted using standard operating positions specified by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a device model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., next to the body) as required by the FCC for each model. The FCC has granted an Equipment Authorization for this model device with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model device is on file with the FCC and can be found under the Display Grant section <http://www.fcc.gov/oet/fccid> after searching on FCC ID: for version 1 unit—FCC ID: R68WIBATT, IC ID: 3867A-WIBATT and for version 2 unit—FCC ID: R68WIBATTV2, IC ID: 3867A-WIBATTV2. 

Glossary

802.3	Defined by the IEEE, these standards govern the use of the CSMA/CD (Carrier Sense Multiple Access/Collision Detection) network access method used by Ethernet networks.
access point	A device that allows wireless-equipped computers and other devices to communicate with a wired network.
address	See IP address.
connection module	LifeScan's remote connectivity device that allows you to transfer data between the meter and workstation. The connection module can be connected to, and transfer data via, modems, a network (through an Ethernet connection), or locally through the workstation serial port.
DHCP	Dynamic Host Configuration Protocol. A protocol that computers use to obtain configuration information. DHCP allows a computer to be assigned an IP address without requiring a manager to configure information about the computer in a server's database.
Ethernet	A local area network (LAN) developed by Xerox, Digital, and Intel, and subsequently adopted by the IEEE as a standard that interconnects personal computers. OneTouch [®] DataLink [®] uses an IEEE 802.3 compliant Ethernet.
EZWebCon	A Lantronix software application that allows you to assign IP addresses for, and configure, Lantronix serial servers and terminal servers prior to establishing connectivity with the workstation.
hub	An electronic device that implements a network. Computers connected to a hub can communicate as if they are attached to a network.
IEEE	Institute of Electronic and Electrical Engineers. A major standards-setting group in the United States.

IP address	A name, set of numbers, or sequence of bits used to identify devices on a network. Each computer, printer, server, or other device on the network must have a unique address. Addresses are necessary so that information transmitted on the network will get to the right destination.
modem	A device that transforms digital information into an analog signal and vice versa for transmission across phone lines. A pair of modems allows you to transmit data from the connection module to the workstation through analog phone lines.
modem connector	A DB25 male to RJ11 connector that plugs into the modem and connects the modem to the meter connection module.
modem-to-serial server cable	A DB25 male to DB25 female molded cable that connects a modem to a serial server.
network	A system of computers and peripherals connected by some media and capable of communication.
network device	A device (serial server, terminal server, or serial client) that connects a connection module or modem to a network through an Ethernet connection.
network patch cable (RJ45)	A twisted-pair cable used for transmitting information across an Ethernet network.
OneTouch[®] DataLink[®] Sync software	The communications software running on a nursing unit PC, which allows you to transfer data from a meter connected to the PC to the OneTouch [®] DataLink [®] workstation over the network.
OneTouch[®] MeterLink[™] software	LifeScan's software application that establishes a connection between a meter and the OneTouch [®] DataLink [®] workstation. The software opens a local serial port to the workstation and a TCP/IP socket to each PC server or network device (serial server, terminal server, or serial client).

PC server	The computer running OneTouch [®] DataLink [®] Sync software and networked to the OneTouch [®] DataLink [®] workstation. The PC server uses OneTouch [®] DataLink [®] Sync software to communicate with OneTouch [®] MeterLink [™] software on the workstation, allowing you to transfer data from a meter to the workstation over an Ethernet network.
phone cable (RJ11)	A cable used for transmitting information across analog phone lines.
PING	Packet InterNet Groper. A program used to test network connectivity. PING sends a request message to a destination, and reports whether it receives a reply as expected. To PING a device, access the DOS prompt, then type ping, followed by a space, and the IP address (example: ping 154.1.80.82). Press Enter.
protocol	A set of rules for communication between two or more computers. OneTouch [®] DataLink [®] uses the TCP/IP protocol suite.
serial client	A device that connects a connection module or modem to a network through an Ethernet connection. A serial client may also be a wireless unit, which allows you to connect a OneTouch [®] Flexx [™] meter to a workstation via a network enabled for wireless access. The serial client connection is active only when the meter is communicating with the workstation. The serial client is configurable and communicates using TCP/IP.
serial modem cable	A DB25 male to DB9 female molded cable that connects a modem to the workstation's serial port.
serial port connector	A DB9 female to RJ11 connector that plugs into the workstation's serial port and connects the workstation to a meter connection module.
serial server	A device that connects a connection module or modem to a network through an Ethernet connection. The serial server connection is constant, even when the meter is not communicating with the workstation. The serial server is configurable and communicates using TCP/IP.

serial server connector	A DB25 female to RJ11 connector that plugs into the modem and connects the modem to a serial server.
TCP/IP	Transmission Control Protocol/Internet Protocol. A widely used industry protocol suite for connecting computer equipment. TCP/IP is fully compatible across different hardware platforms, allowing computers from different vendors to interoperate and share data and services. Although the suite has many protocols, TCP and IP are two of the most important.
terminal server	A device that connects up to eight receiving modems to a network through an Ethernet connection. The terminal server is configurable and communicates using TCP/IP.
terminal server connector	A DB25 male to RJ45 connector that plugs into the modem and connects the modem to a terminal server.
wireless unit	A serial client device which allows you to transfer data from the OneTouch [®] Flexx [™] meter to the workstation through a network enabled for wireless access. After you connect the meter to the wireless unit using the serial cable, data is transmitted from the wireless unit through an access point installed on the network.
workstation	A high-performance computer specialized for a certain application. The OneTouch [®] DataLink [®] workstation uses the Windows [®] operating system and OneTouch [®] DataLink [®] Data Management System.

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