TeraJet DOCSIS Modem Installation Guide

Model:

ECM 210

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Installation Guide

READ ME FIRST!

Congratulations

Congratulations on your purchase of a TeraJet DOCSIS Cable Modem. The Terayon TeraJet ECM 210 DOCSIS Cable Modem is the perfect choice for connecting your personal computer to a lightning fast broadband internet connection.

Getting Started

This installation guide is designed for anyone who wants all the “how-to” information about installing the TeraJet ECM 210 Data-Over-Cable Service Interface Specification (DOCSIS) Cable Modem. You have probably heard of online help. Well, think of this installation guide as *onside* help. For best results, read each procedure beforehand — reviewing each procedure may answer some questions that could come up during the installation process. So let’s get started.

Package Contents

Please take a moment to unpack your modem and familiarize yourself with the all cables and components included in the box. Use the list below and Figure 1 to verify the contents of the box.

TeraJet ECM 210 Cable Modem Package Contents

- TeraJet Model 210 DOCSIS Cable Modem
- Cable Modem Power Adaptor
- RJ-45 Ethernet Cable
- Universal Serial Bus (USB) Cable
- CD-ROM with USB Drivers

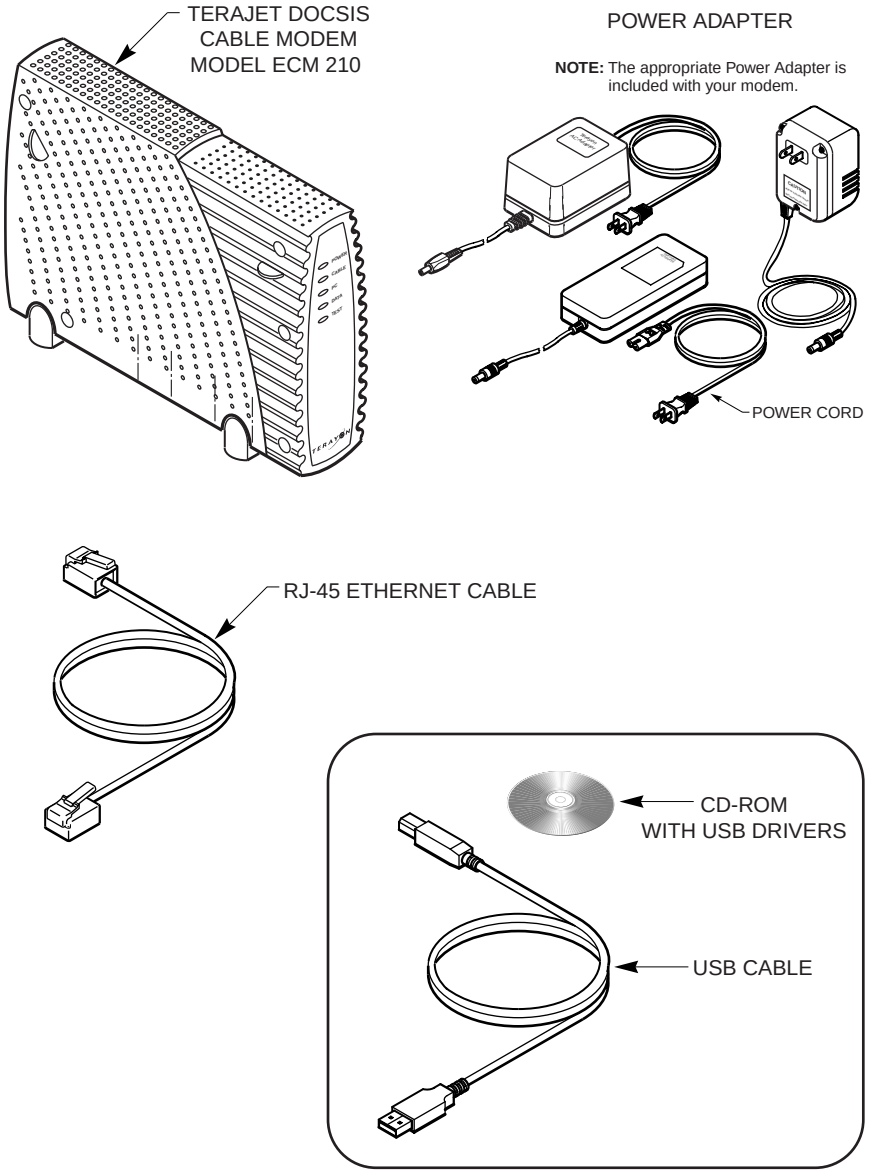

Figure 1 Contents of Cable Modem Box

System Requirements

Before you begin installing your new TeraJet cable modem, make sure your computer system has the following hardware and software.

Hardware/Software	IBM PC or Compatible	Apple/Macintosh
CPU	Pentium class microprocessor or equivalent	Power PC 601 or later; iMac®
Memory (RAM)	32 MB	24 MB
Available Disk Space	50 MB	50 MB
Operating System	Windows® 95, 98, 2000, Windows NT® 4.0 Workstation	OS 7.5.1 or later
Network Connectivity	Must have (any one): • USB Port • Network Interface Card (NIC) • PCMCIA Card (laptop)	Must have (any one): • USB Port • Network Interface Card (NIC) • PCMCIA Card (laptop)

NOTE: *Computers using Windows 95, NT 4.0, or a Macintosh operating system must use an ethernet port to connect to the TeraJet ECM 210 Modem.*

Installation Overview

As you follow the self-installation process, you may be asked to perform some tasks you have not previously attempted. You will be guided through the following steps:

- Connecting the Coaxial Data Cable to the Modem
- Connecting the Power Adaptor to the Modem
- Connecting the Modem to your Computer
- Starting the Modem.

What You Will Need

The following is a list of items you will need to install your new Terayon cable modem:

- This installation guide
- Your computer user manual
- The cable modem

INSTALLING THE MODEM

Connecting the Modem

To install your new cable modem, perform the following procedures in order.

Modem Connectors

Before you begin installing your new cable modem, take a moment to familiarize yourself with the modem connectors identified in Figure 2. An explanation of each connector follows the illustration.

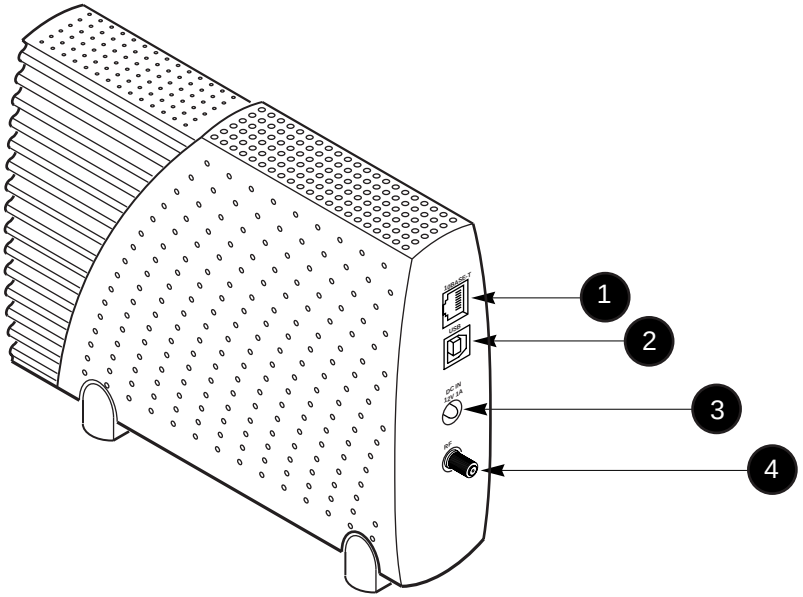

Figure 2 Modem Connectors

1 - RJ-45 Ethernet Port	Connects the modem to the Ethernet port on your computer NIC card.
2 - USB Serial Port	Connects the modem to the USB port on your computer.
3 - DC Input-jack	Connects the modem to the Modem Power Adapter.
4 - RF Cable Connector	Connects the modem to the coax cable supplied by your cable company.

Connecting the Coaxial Cable to the Modem

To connect your new cable modem to the coaxial cable, do the following:

1. Remove your new cable modem from its box and place it near your computer.
2. Locate the coaxial data cable supplied by your cable company.
3. Connect the end of the coax cable to the RF connector on the modem as shown in Figure 3. Tighten the connection with a suitable spanner.

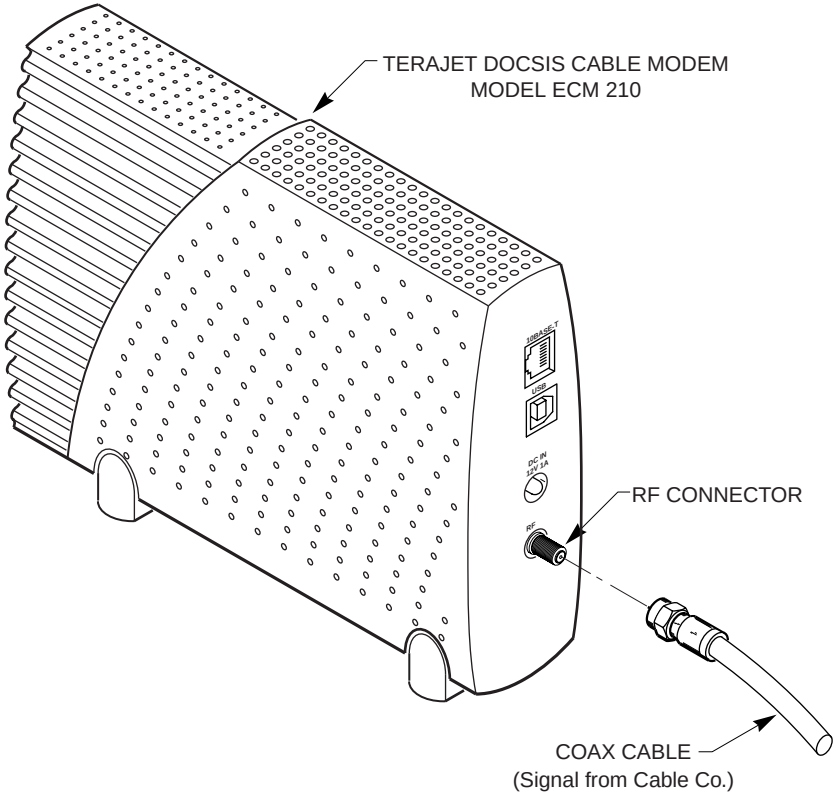

Figure 3 Connecting the Data Cable to the Modem

Connecting the Power Adapter to the Modem

Power for your cable modem is generated by the Power Adapter unit that comes with the modem. The Power Adapter shipped with your ECM 210 modem is one of the adapters shown in Figure 4, in compliance with the requirements of your country.

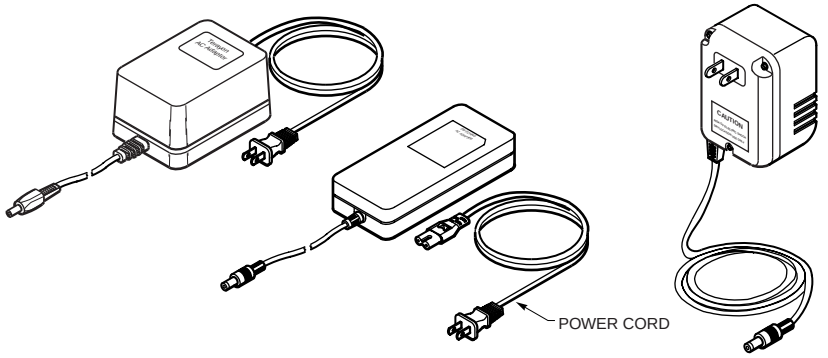

Figure 4 Power Adapters

To connect the Power Adapter to the modem, do the following:

1. Remove the modem Power Adapter from the modem cable box.
2. Using Figure 5 as a guide, insert the Power Adaptor output connector into the DC Power input jack on the back of the modem.

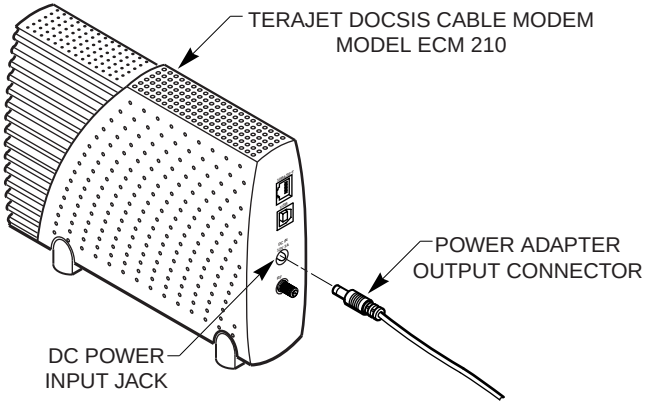

Figure 5 Connecting the Power Adapter to the Modem

IMPORTANT: *Do not connect the adapter AC power cord to an AC outlet at this time.*

Connecting the Modem to your PC

In order for your computer to communicate with your new modem and the internet, it must be equipped with a network interface. Today's computers are typically equipped with either a 10 Base-T Ethernet card or a Universal Serial Bus (USB) port. The TeraJet ECM 210 modem comes equipped with RJ-45 ethernet and USB connectors, allowing the modem to connect to either an Ethernet port or a USB serial port.

To connect your new modem to your PC, do the following:

1. Before you begin connecting the modem to your PC, look in your computer user manual or look at the back of your PC to see what kind of network interface your PC is equipped with.

IMPORTANT: *If you do not have a network interface pre installed in your computer, you will need to purchase one from a retailer, and install it according to manufacturer instructions. After installing the network interface card, you must configure your computer for TCP/IP protocol. Refer to your operating system user manual for setup instructions.*

2. If your PC is equipped with a 10 Base-T Ethernet card, proceed to the "Connecting the 10-Base-T- Ethernet Cable" procedure. If your PC is equipped with a USB Serial Port, proceed to "Connecting the USB Cable" on page 10.

IMPORTANT: ***Do not*** *connect the modem to both the PC Ethernet and the USB port. Use either the USB or the Ethernet port, not both.*

Connecting the 10 Base-T Ethernet Cable

To connect the 10 Base-T Ethernet cable, follow these steps:

1. Retrieve the 10 Base-T Ethernet cable from the box the modem came in. Use Figure 1 on page 2 to identify the cable.
2. Using Figure 6 as a guide, connect one end of the 10 Base-T Ethernet cable to the RJ-45 Ethernet port on the back of the modem.

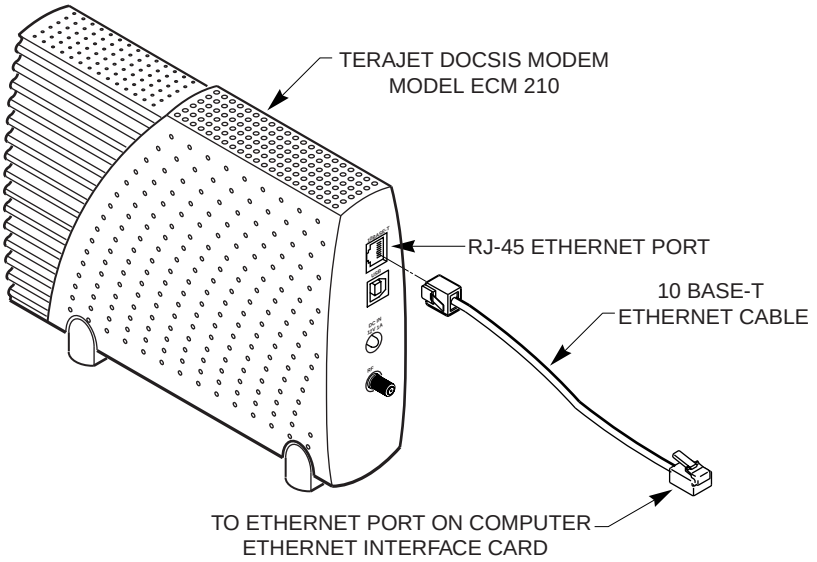

Figure 6 Connecting the Ethernet Cable to the Modem

3. Connect the remaining end of the 10 Base-T Ethernet cable into the RJ-45 Ethernet port on the Network Interface Card (NIC) as shown in Figure 7.

NOTE

NOTE: *Your computer may be a desktop model or a tower model in which case it will look different than the illustration shown in Figure 7.*

4. Proceed to “Starting the Modem” on page 12.

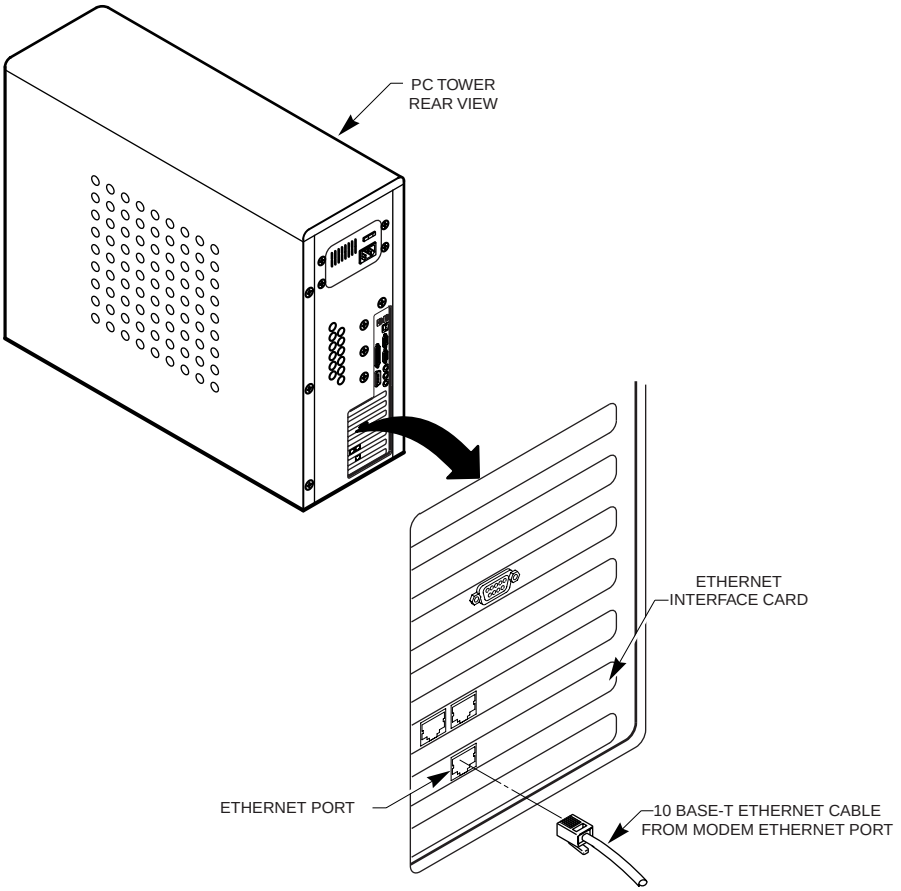

Figure 7 Connecting the Ethernet Cable to the NIC

Connecting the USB Cable

In order for your computer USB Interface to pass data back and forth to the TeraJet ECM 210 Modem, you must connect a USB cable to the modem USB port and the USB port on the back of the computer.

To connect the USB cable, follow these steps:

1. Retrieve the USB cable from the box the modem came in.
   Use Figure 1 on page 2 to identify the cable. Notice that the USB cable has two types of connectors, an “A” type, and a “B” type. Figure 8 identifies the connector types.

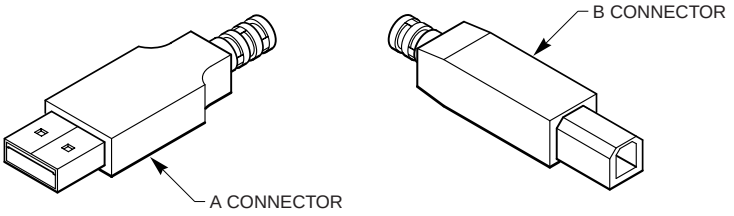

Figure 8 USB Cable Connectors

2. Using Figure 9 as a guide, insert the USB cable “B” connector into the USB Serial port on the back of the TeraJet ECM 210 modem.

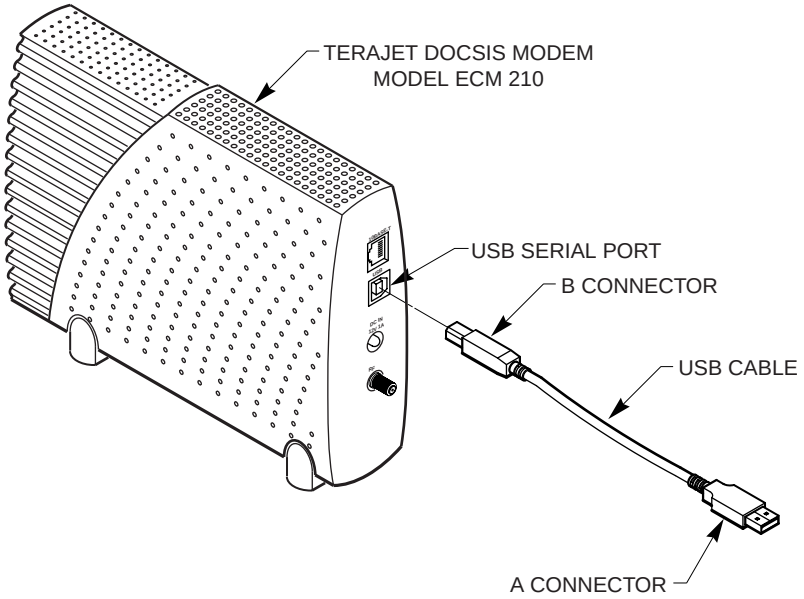

Figure 9 Connecting the USB Cable

3. Insert the USB cable “A” connector into the computer USB Serial port on the back of your computer as shown in Figure 10.

NOTE

NOTE: *Your computer may be a desktop model or a tower model in which case it will look different than the illustration shown in Figure 10.*

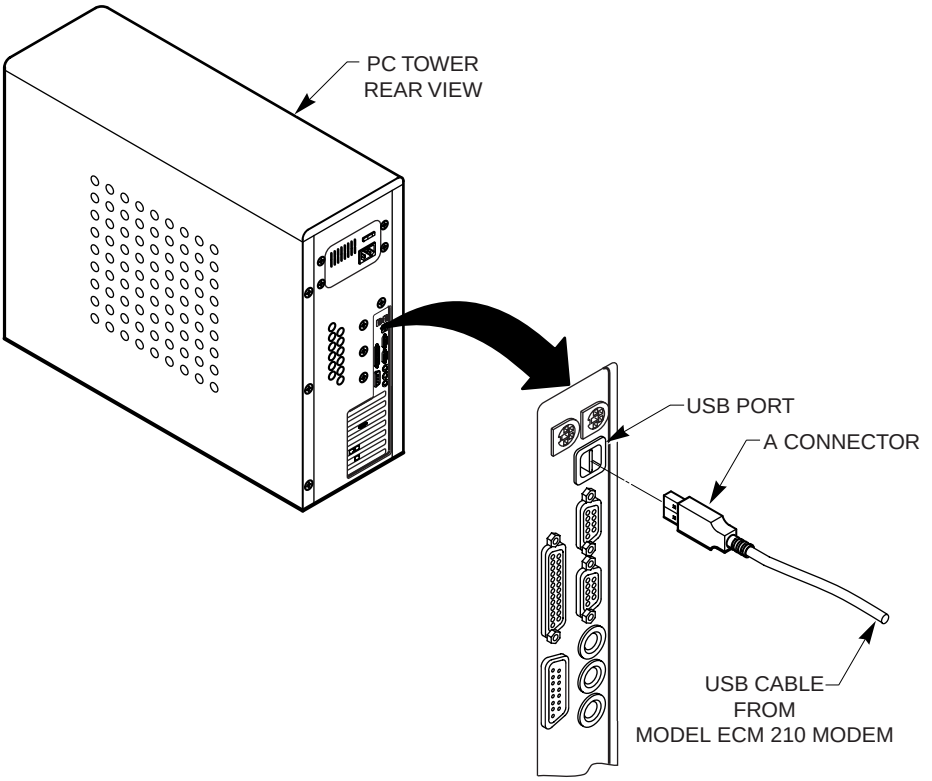

Figure 10 Connecting the USB Cable to the Computer USB Serial Port

4. Proceed to “Starting the Modem” on page 12.

Starting the Modem

To start operating your new TeraJet ECM 210 cable modem, do the following:

1. Power on your computer and wait until it completes the boot-up process.
2. Plug the Power Adaptor power cord into an appropriate AC power outlet.

NOTE: *If you have connected the TeraJet ECM 210 modem to your computer using the USB port, your computer will prompt you to load a USB driver as soon as you apply power to the modem. Load the USB Drivers CD that came with the modem into your CD-ROM drive and follow the on-line instructions. You may have to tell the computer what drive your CD-ROM drive is.*

Once your TeraJet ECM 210 cable modem is properly connected and the Power Adapter is connected to an AC power outlet, it will automatically boot-up and start scanning for the active cable modem channel from your cable company server.

IMPORTANT: *When you power up the TeraJet ECM 210 DOCSIS cable modem for the first time, it can take up to 10 minutes for the modem to complete its boot-up and scanning sequence. Do not turn modem power off during the boot-up and scanning sequence, unless your cable operator instructs you to do so.*

3. Verify the Cable and PC Link LED indicators on the modem front panel are turned ON.
   If the Cable and PC Link LEDs are turned ON and not blinking, you have successfully installed your new TeraJet ECM 210 cable modem. If the Cable and PC Link LEDs are not turned ON or are blinking, see “Troubleshooting” on page 14.

Reading Your Modem Lights

The indicator LEDs on the front panel of the TeraJet ECM 210 cable modem tell you what's happening during a communications session. The table below tells you what each LED indicator means.

LED Indicator	Color	Definition
Power	Green	Dark for power OFF. Solid for power ON or Online.
Cable	Green	Dark for no downstream RF carrier present or power OFF. Flashing slowly for downstream carrier present and ranging in process. Flashing rapidly for registration in process. Solid for modem on line and operational.
PC Link	Green	Solid for USB/Ethernet link established. Dark if USB/Ethernet link not established.
Data	Green	Flashing for data passing through modem. Dark for no data passing through modem or power off.
Test	Green	Solid during ranging and registration operations. Dark when ranging and registration is complete and modem is on line and operational.

TROUBLESHOOTING

Troubleshooting

Problem:

I cannot access my E-mail or Internet Service.

Possible solution:

Check all connections. Make sure the cable line is securely connected to the cable jack on the back of the modem. Verify the Ethernet or USB cable is securely plugged into both the modem and your network interface card or USB network interface. Make sure your Power Adapter is properly plugged into both the modem and a wall outlet or surge protector. If your cable modem is properly connected, the Cable and PC Link indicator lights on the modem front panel should be a solid color.

If the Cable and PC Link indicator lights (LED's) are solid green (not blinking), your cable modem is operating properly. Try shutting down and powering off your computer and then turning it back on. This will cause your computer to re-establish communications with your cable company server.

1. Your network interface card may be malfunctioning. Refer to the Manufacturer's documentation for troubleshooting information.

2. Call your cable company to verify their service is two-way. This modem is designed for use with two-way cable plants. Verify your account is activated.

Problem:

The Cable LED never stops blinking.

Possible Solution:

The signal from your cable company equipment may be too weak or the cable line may not be properly attached to the modem. If the cable line is properly connected

to the modem, call your cable company to verify whether or not a weak signal may be the problem.

Problem:

The power on my modem goes on and off sporadically. The Cable light never stops blinking.

Possible Solution:

You may be using the wrong power supply. Check that the power supply you are using is the one that came with your cable modem. If you cannot connect to the Internet at all, use this checklist to help identify possible problems:

- Make sure your computer and monitor are turned on.
- Make sure all power plugs are completely inserted into their sockets.Your computer and cable modem should be plugged into grounded outlets.
- If you are using a power strip, make sure it is turned on.
- Make sure all data cables are firmly connected at both ends.
- If you still do not have a connection, call your cable service to confirm they have properly set you up for service. If so instructed, reset your modem.

TECHNICAL SUPPORT

Technical Support and General Inquires

Welcome to Terayon DOCSIS Cable Modem Support. Terayon provides service and support in the following ways:

E-mail Support

Terajet_support@terayon.com

During regular business hours, we will respond within 1 to 4 hours. After hours, we will respond the morning of the next day.

Find Terayon Support on the Terayon Web Site

Visit our web site at:
http://www.terayon.com

Talk to a Technical Support Agent

To speak directly with a support agent who specializes in Terayon DOCSIS cable modem information, call this toll-free number: 1-888-859-3242 (chargeable to customers outside U. S. A.). Hours of operation are Monday through Friday 8:00AM - 5:00 PM, Pacific Time.

Return Policy

Terayon will only accept a package with a valid Return Authorization Number. Please contact your Terayon Technical Support representative (1-888-859-3242). If the support representative determines that you need to return the modem, you will receive a Return Authorization Number and shipping instructions.

Product Registration

When you register your Terayon DOCSIS cable modem, you are eligible to receive technical support, to track your proof of ownership, and to stay informed about upgrades and special offers. Be sure to fill out your registration information on the Terayon web site.

http://www.terayon.com Click **Support**, then follow the links to the registration page.

WARRANTY

Warranty

Terayon warrants that for a period of three (3) years from the date of purchase from Terayon or an authorized reseller the product will be free from defects in material and workmanship under normal use. If this product is not in good working order as warranted, the sole and exclusive remedy shall be, at Terayon's option and expense, to repair the defective product or to provide an equivalent replacement product. All products that are replaced will become the property of Terayon. Replacement products may be new or products reconditioned to a like-new condition.

Restrictions - This warranty does not apply if the product (a) has been altered, except by Terayon, (b) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Terayon, (c) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident, or (d) used in ultra hazardous activities.

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IN NO EVENT WILL TERAYON OR ITS SUPPLIERS BE LIABLE FOR ANY LOST REVENUE, PROFIT, OR DATA, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, OR PUNITIVE DAMAGES HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY ARISING OUT OF THE USE OF OR INABILITY TO USE THE PRODUCT, EVEN IF TERAYON OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. In no event shall Terayon's or its suppliers' liability of the Customer, whether in contract, tort (including negligence), or otherwise, exceed the price paid by Customer for the product. The foregoing limitations shall apply even if the above-stated warranty fails of its essential purpose.