

**AXW-D800 / AXW-D1900**

**CDMA 1xEVDO  
Wireless Broadband Modem**

**User Manual**





## User ID and Password

You may need to enter the user ID and password in order to use the 1xEV-DO Modem

Please write User ID and Password for future need. Keep this manual in a secure place.

User ID: \_\_\_\_\_

Password: \_\_\_\_\_

Dial Number: \_\_\_\_\_

## 1x Data Service User ID and Password (optional)

In some cases, your service provider may provide you with a different user ID and password for 1x data service access (153.6 Kbps max).

User ID: \_\_\_\_\_

Password: \_\_\_\_\_



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## Package Contents

After opening the package, check to make sure that you have all the parts shown below. If any piece is missing or broken, please call customer service.

- One Axess•tel 1x-EVDO Wireless Broadband Modem
- Two Antennas
- Power Adaptor (Input: AC 110~240V 50~60 Hz, Output: DC 9V 1A)
- AC Power Cable
- CAT-5 Ethernet cable
- USB cable
- USB Driver Installation CD
- Quick Guide or User Manual

**CAUTION!** Use only the provided power adaptor. Using other power adaptor may damage the EV-DO modem.

## Before you start

You must have an active account with the service provider in order to make connection.

- Configure your PC to obtain TCP/IP settings automatically from DHCP server feature of EV-DO modem. Refer to "TCP/IP Settings" for more information on how to set up TCP/IP settings on your PC.
- In order to connect multiple PCs to EV-DO modem and share internet connection, you will need an Ethernet Switch, a Hub, or a Router.



## **Introduction**

Axesstel 1xEV-DO Broadband EV-DO modem allows users to "get connected" to high speed data services with unprecedented ease. Powered by the latest QUALCOMM MSM6500 processor, this wireless broadband modem provides high speed data service through USB or Ethernet interfaces at rates of up to 2.4Mbps download and 153.6 Kbps upload. With RJ-45 Ethernet connection, the users can enjoy true plug and play connection without driver installation.

## **Features**

- CDMA 1xEV-DO data service with speed up to 2.4Mbps download and 153.6Kbps upload
- Backward compatible to CDMA2000 1xRTT Data service (153.6 Kbps max) if available by the service provided.
- Receive Diversity (2 antennas) for enhanced RF performance
- 4 LED indicators (Power, Signal Strength, Connection, and Ethernet)
- RJ-45 Ethernet and High Speed USB 1.1 data port
- Web based Configuration Tool
- Desktop or Wall-Mountable



## Safety Precaution

1. Avoid placing the unit in a dusty location, or near a source of gas or fire.
2. Do not shake, hit or drop the unit.
3. To clean the unit, use only a soft, dry cloth. The chemicals in alcohol, benzene or acetone can damage the surface of the unit.
4. Do not twist or pull the cord out of the unit.
5. Do not disassemble the phone.
6. DO NOT use the power adapter if the power cord is damaged or the unit has been dropped or damaged in any way.
7. Only use the power adaptor provided by Axesstel. Do not use the Axesstel adapter for any other purpose.
8. Use only the antenna provided with the unit. Do not use the antenna for any other purpose.
9. Do not use the unit near water, for example, near a bathtub, sink, wet basement, or swimming pool.

NOTE: The input voltage and the shape of the plug on this phone may vary from country to country.

## Basic Installation

1. Connect the antennas on the connectors of each side of the unit.
2. Connect the EV-DO modem to computer using RJ-45 Ethernet Cable (CAT 5) or USB cable.
3. Move the connection selector switch to USB or Ethernet depending on which cable you are using.
4. Connect the power adaptor to the DC 9V socket of the EV-DO modem.
5. Plug the AC adaptor into an appropriate electrical wall outlet.

### Wall mounting...

1. Mark two mounting holes on the wall.
2. Drill two holes at the marked locations.
3. Tighten the screws until the head is about 5mm from the wall.
4. Hang the unit on the screw using the two holes in the back.
5. Push the unit down until the unit is firmly locked into place.



## Getting to know the EV-DO modem

### Power Switch

Power Switch is located on the front side of the EV-DO modem. Turn on the unit by moving switch to ON position (O). Turn off the unit by moving switch to OFF position (I).

NOTE: When you turn on the EV-DO modem, it automatically searches for service signal. When it successfully acquires service signal, the signal LED turns to green, orange or red depending on signal strength.

### Connection Type Switch

Axess•tel Wireless 1xEV-DO Modem lets you choose type of connection. Connection Type Switch is located between Ethernet port and USB port. Set this switch to Ethernet or USB depending on type of connection you are using.

### LED Indicators

LED	Color	Indicates
Power	Green	Power is on
	Off	Power is off
Signal	Green	Excellent signal level
	Orange	Good signal level
	Red	Poor signal level
	Off	No signal or service is present
Connect	Green	Connected to the CDMA network
	Off	Not connected
Ethernet	Green	PC connected to the modem by Ethernet
	Blinking	Indicates data activity
	Off	No PC connected to the modem by Ethernet



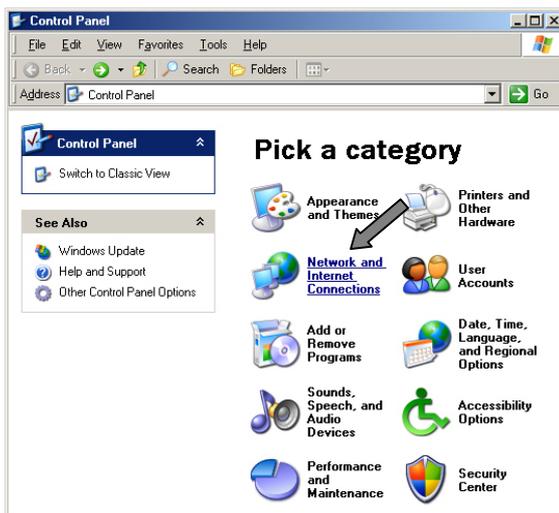
## Connection using Ethernet port

1. Power off the unit before connecting the cables.
2. Connect CAT-5 Ethernet cable to Ethernet port of EV-DO Modem.
3. Connection type switch next to the Ethernet port should be set to Ethernet. If not, slide the switch toward the Ethernet port.
4. Connect other end of Ethernet cable to the RJ-45 connector of Ethernet network adapter or a network device.
5. Connect the Power Adapter to the power connector of EV-DO modem. Plug the AC plug into a power outlet.
6. Turn the power ON, using the power switch next to the power jack. The LED labeled “Power” light on.
7. Wait for few seconds for EV-DO modem to search for the service. The LED labeled “Signal” turns to Red, Orange, or Green when signal is acquired.

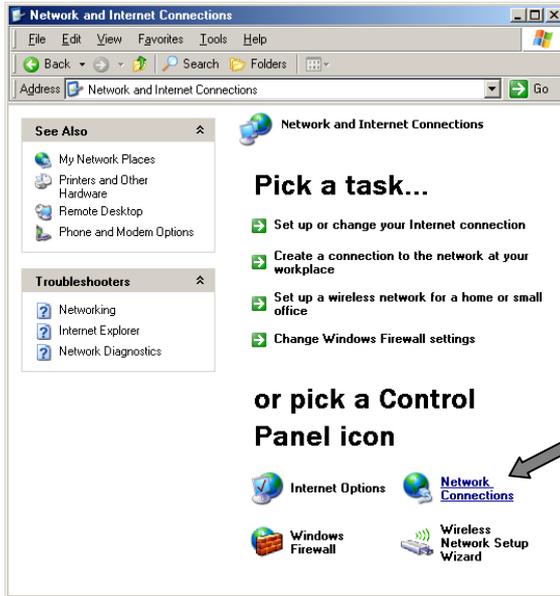
## Configuring Your PC

The EV-DO modem’s Ethernet is configured with DHCP by default. This means that IP address of your PC is automatically assigned by the EV-DO modem.

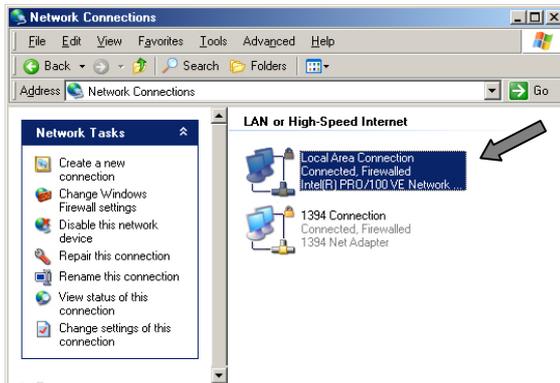
If the PC’s cannot get IP address and cannot make connection to internet. Check the TCP/IP setting of your “Local Area Connection”.



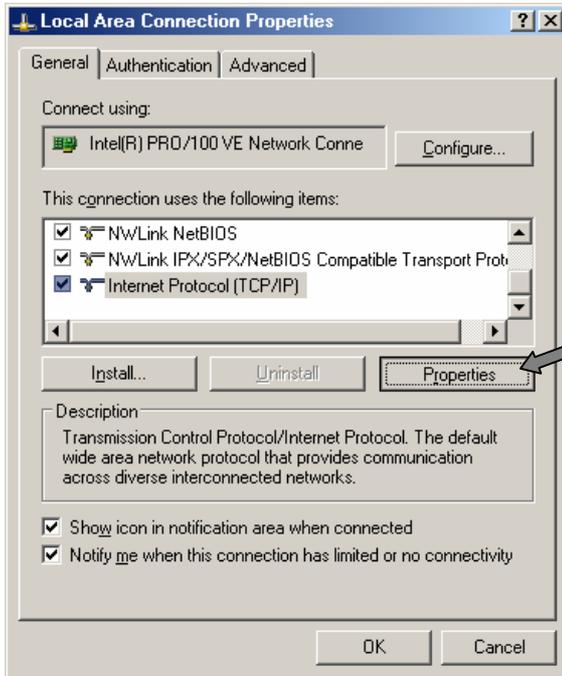
1. Click the Start button, select Settings, and select Control Panel.



2. Double click the Network Connection icon.



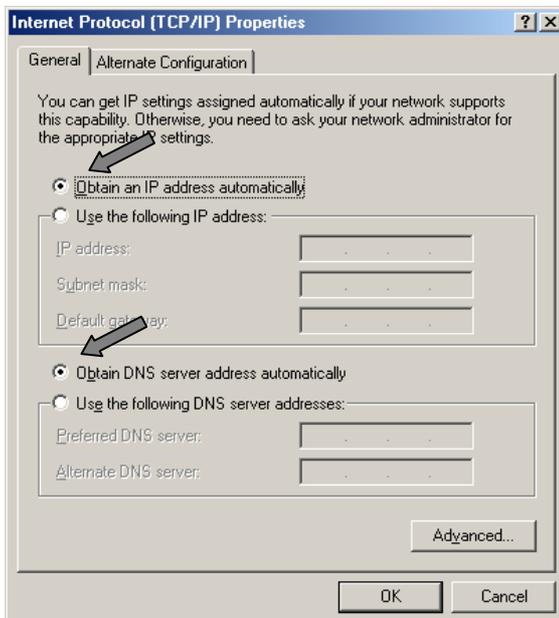
3. Go to Local Area Connection Properties.



4. Select the “Internet Protocol (TCP/IP)”

1. If there is no TCP/IP line listed, you will need to install TCP/IP first.

5. Press the “Properties” button.



6. Check “Obtain an IP address automatically”

7. Check “Obtain DNS Server address automatically”.

8. Click Ok to exit Properties.

9. If asked to re-start the PC, click “YES”.



## Configuring Ethernet Connection

NETWORK	SYSTEM			NETWORK			SECURITY		
	Local Area Network Setup								
	LAN		IP Address	192.168.0.1					
			Subnet Mask	255.255.255.0					
	DHCP Server		<input checked="" type="radio"/> Enable <input type="radio"/> Disable						
			Range from	192.168.0.2	to	192.168.0.253			
			DNS IP Address	216.70.224.17					
			DHCP Relay Server	0.0.0.0					
	APPLY								
	Wide Area Network Setup								
WAN Connection Type		EvDO Modem							
Physical Address		00:0b:ae:00:00:03							
PPP Configuration									
User ID		Password		Authentication		Dial Number			
useridhere		*****		PAP		#777			
APPLY									

EV-DO modem provides an embedded Web-based Management Utility. Configure your EV-DO modem by using your Web Browser. Please refer to Web-based Manager section.

### Log In

Open your Web browser and enter 192.168.0.1 in the address bar  
When prompt for User name and password, enter the following user id and password.

<b>User ID:</b>	<b>admin</b>
<b>Password:</b>	<b>admin</b>

If you have changed the user name and the password, enter the new name and password.



1. Click on the “Network” tab.
2. Under “Local Area Network Setup”, Select “DHCP Server->Enable” to enable Dynamic IP assignments.
3. Under “PPP Configuration”, enter login User ID and Password of the account. Choose type of Authentication process used by the network. Enter access dial number of login account.
4. Press “APPLY” button.
5. Turn off and turn on the terminal.
6. Log in and check if the information you have entered are correctly shown. Password is shown with black dots for security purpose. If the User ID is not changed, repeat the steps 3, and 5..

DHCP stands for Dynamic Host Configuration Protocol. Axisstel Wireless 1x-EV-DO Modem has a built-in DHCP server. The DHCP server will automatically assign an IP address to the computers on the LAN. Be sure to set each client PC's TCP/IP settings to “obtain an IP address automatically”.

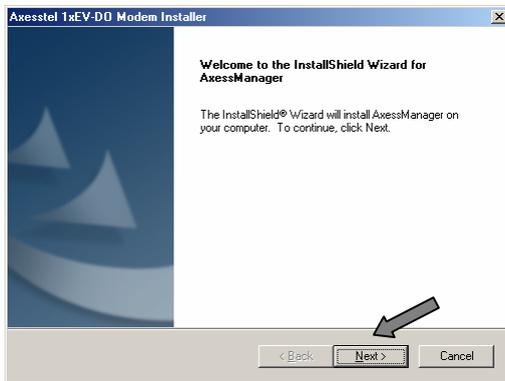


## Connection using USB port

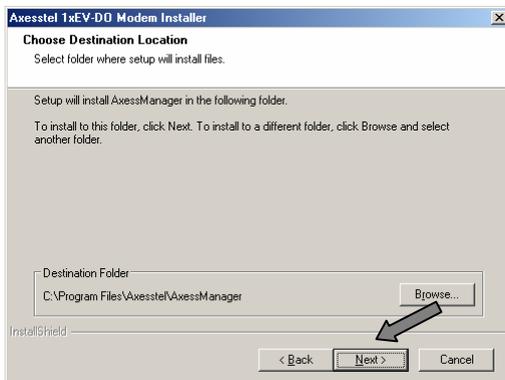
### USB Driver Installation (Part 1) Run Setup from the CD

Run the Setup program on the USB Driver CD.

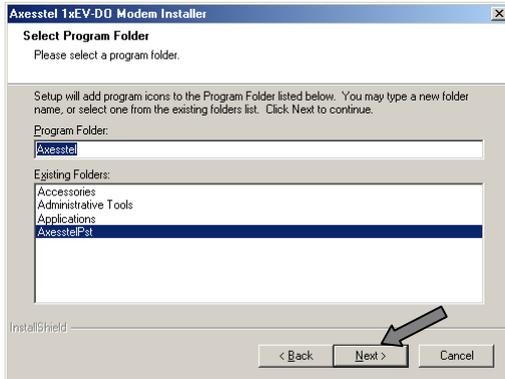
It is important that you should run the setup before connecting the USB cables to your PC.



1. Run the setup. Make sure that the USB cable is not yet connected.

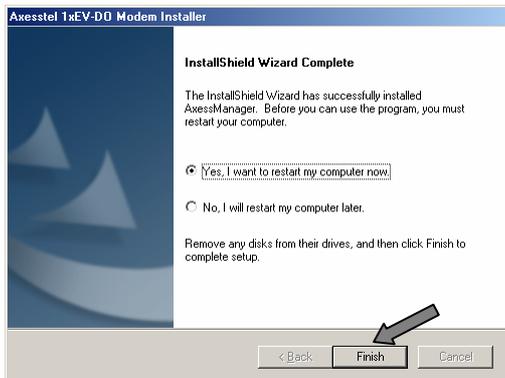


- If you wish to change the location of the files, press "Browse" and select location.
2. Otherwise, press "Next".



- If you wish to change the START Menu location, change the name of the folder.

3. Otherwise, press “Next”



- If you do not wish to restart the window, but restart later, check “No, I will restart my computer later.”

4. Otherwise, press Finish.

## USB Driver Installation (Part 2) Preparation

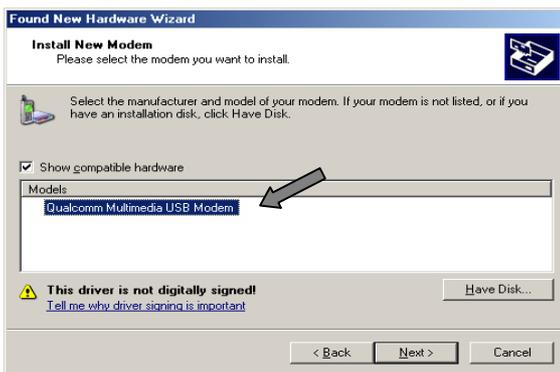
1. Turn off both the EV-DO modem and your PC.
2. Connect the included USB Cable to USB port on your PC.
3. Cable select switch, located between Ethernet and USB connectors, should be set to USB.
4. Connect other end of USB Cable to USB port on EV-DO modem.
5. Connect the included Power Adapter to Power connector of EV-DO modem.
6. Connect the other end of Power Adapter to an electrical outlet.
7. Power on EV-DO modem.



## USB Driver Installation (Part 3) Driver Installation



1. Power on the PC. After the boot up process, you will see "Found New Hardware" screen.



2. The New Hardware Wizard may recognize the name by itself. Or you may have to select from a list.
3. Select "Qualcomm Multimedia USB Modem".



4. When you encounter this window, press "Continue Anyway".



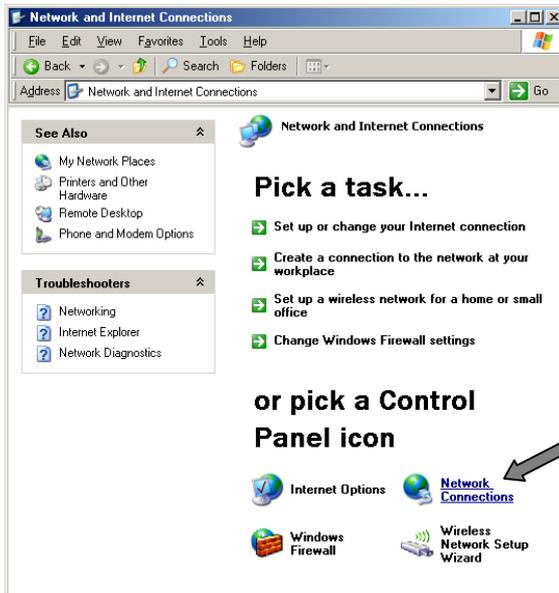
5. Press “Finish”.

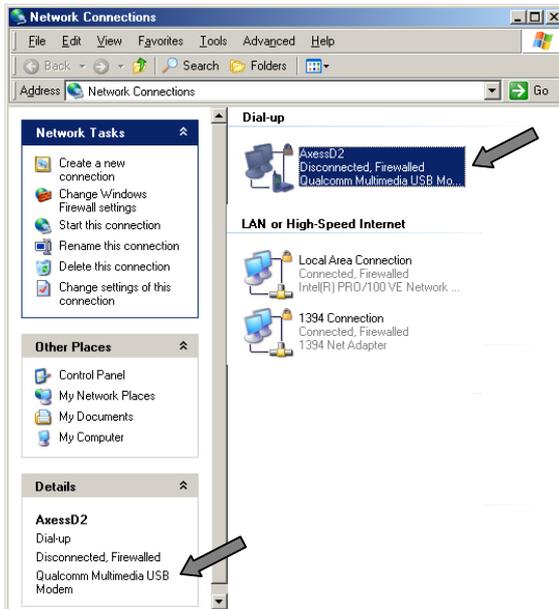


## Connection Using USB connection.

After USB driver has been installed, follow following steps to connect to the 1`xEV-DO network.

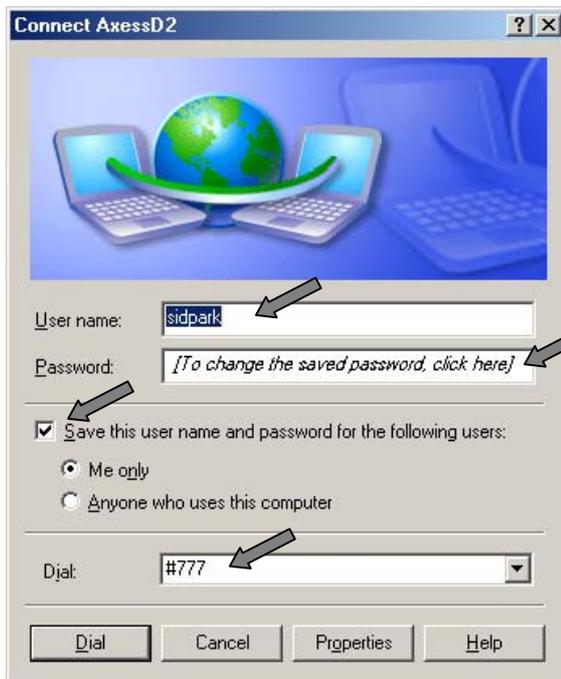
1. Open Network Connections from the Start Menu or Control Panel.





2. Double click “AxessD2” connection item.

Make sure that the modem associated with the connection is “Qualcomm Multimedia USB Modem”.

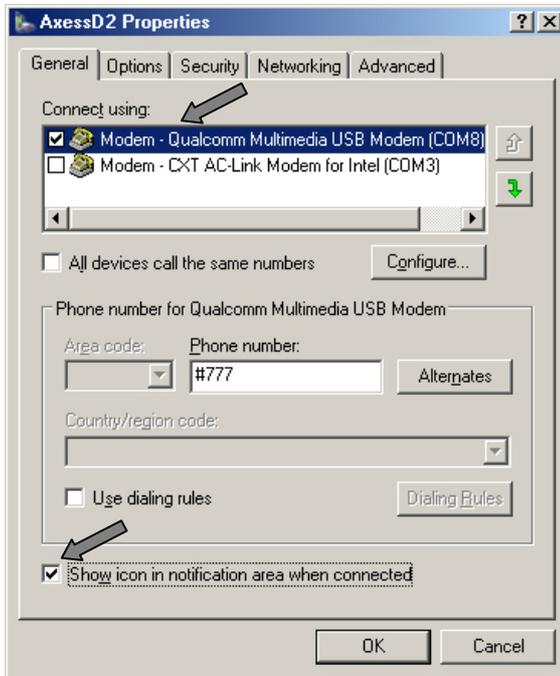


2. Enter User name and Pasword.

- Check “Save this user...” if you do not wish to enter the user name and password every time you use the EV-DO modem.

3. On you first use, press “Properties” button to check if all settings are correct.

4. Make sure to enter the dial number as well. This number is dependant on the service provider.



3. Check that the correct modem is select.

4. Check “Show icon in notification area when connected”

- If a wrong modem is select, connection attempt will fail.

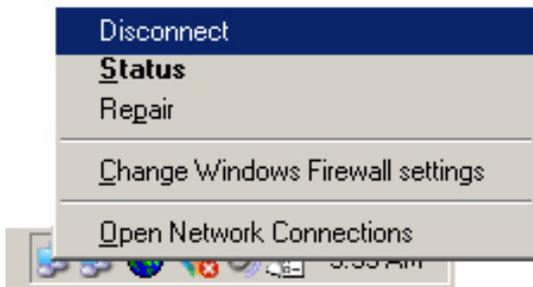


5. Your PC is trying to connect to the EV-DO network.

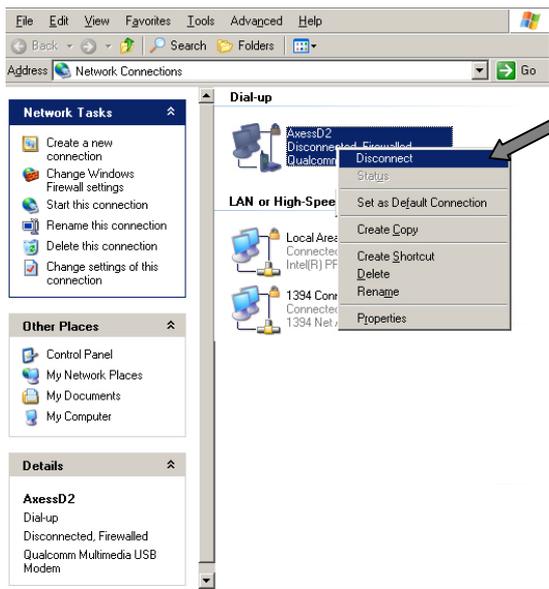
If failed check each step of this section and try again.



## To disconnect USB connection



1. To disconnect the EV-DO connection, Select “Disconnect” from the Tray Icon Area.



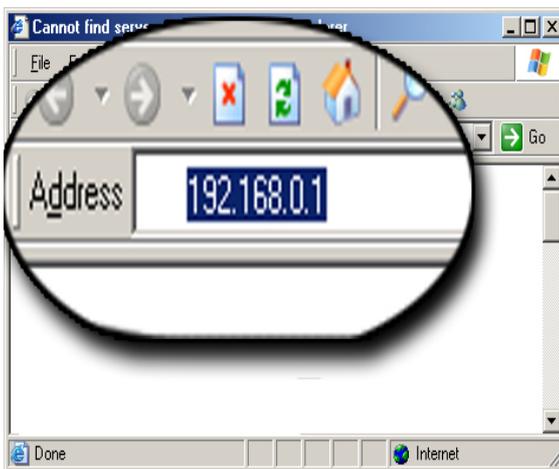
2. If the tray icon is not visible, open the “Network Connections” and select the “AxessD2” connection item.
3. Right click on the icon and select “Disconnect”.



## Advanced Menu: Web Admin Tool

EV-DO modem provides an embedded Web-based Management Utility. This utility is operating system independent. Configure your EV-DO modem by using your Web Browser.

Log In



1. Open your Web browser
  2. Enter 192.168.0.1 in the address bar as in the diagram.
- The default IP address of the EV-DO modem is 192.168.0.1. If you change the IP address of the EV-DO modem, you will have to remember the new IP address in order to get into this menu.



3. When prompt for User name and password, enter admin/admin.
4. Click on appropriate tab to access System, Network, Security, or Status settings.



## System

SYSTEM
NETWORK
SECURITY

### D2TERMINAL System

System Information	Vendor Name	Axesstel Inc.	
	S/W Version	2.4.18-r302 Sep-27-2004 00:03:17	
	Host Name	<input type="text" value="D2TERMINAL"/>	<input type="button" value="CHANGE"/>

Change Password	Old Password	<input type="text"/>	<input type="button" value="CHANGE"/>
	New Password	<input type="text"/>	

System Upgrade	<input type="text"/>	<input type="button" value="Browse..."/>	<input type="button" value="UPGRADE"/>
----------------	----------------------	--	--

Restore Factory Default Configuration	<input type="button" value="RESTORE"/>
---------------------------------------	--

Reboot the System	<input type="button" value="RESTART"/>
-------------------	--

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Host Name	Name of the EV-DO modem. You may change this name according to your network need.
Change Password	To change the password of your account, enter your old password and new password.
System Upgrade	To download new firmware.
Restore Default	Restore all settings to factory default settings.
Reboot System	Restart EV-DO modem.



## Network

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SYSTEM
NETWORK
SECURITY

Local Area Network Setup

LAN	IP Address	<input type="text" value="192.168.0.1"/>
	Subnet Mask	<input type="text" value="255.255.255.0"/>
DHCP Server	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
	Range from	<input type="text" value="192.168.0.2"/> to <input type="text" value="192.168.0.253"/>
	DNS IP Address	<input type="text" value="216.70.224.17"/>
	DHCP Relay Server	<input type="text" value="0.0.0.0"/>
<input type="button" value="APPLY"/>		

Wide Area Network Setup

WAN Connection Type	<input type="text" value="EvDO Modem"/>		
Physical Address	<input type="text" value="00:0b:ae:00:00:03"/>		
PPP Configuration			
User ID	Password	Authentication	Dial Number
<input type="text" value="useridhere"/>	<input type="text" value="*****"/>	<input type="text" value="PAP"/>	<input type="text" value="#777"/>
<input type="button" value="APPLY"/>			

IP Address	IP address of EV-DO modem.
Subnet Mask	Subnet Mask
DHCP Server	Enable if using Dynamic IP Address.
DHCP Server IP Range	Range of IPs that can be assigned by the DHCP Server to each PC.
DNS IP Address	IP address of DNS Server provided by your Service Provider.
PPP Configuration	Enter User ID, Password, Authentication type, and dial number of your wireless data network account.
APPLY	After making changes to Network settings, always click APPLY button to saves changes.



## Security

SYSTEM
NETWORK
SECURITY

Firewall Setup

Firewall Support  Disable  Enable

Client Filtering Local client PC group cannot access specified remote application

	Local Client PC Group		Port Number
1	Local client IP from 0.0.0.0	to 0.0.0.0	0
2	Local client IP from 0.0.0.0	to 0.0.0.0	0
3	Local client IP from 0.0.0.0	to 0.0.0.0	0
4	Local client IP from 0.0.0.0	to 0.0.0.0	0
5	Local client IP from 0.0.0.0	to 0.0.0.0	0

Packet Forward Forward specified application to local PC

	Protocol	Port #	Local PC IP		Protocol	Port #	Local PC IP
1	TCP	0	0.0.0.0	2	TCP	0	0.0.0.0
3	TCP	0	0.0.0.0	4	TCP	0	0.0.0.0
5	TCP	0	0.0.0.0	6	TCP	0	0.0.0.0
7	TCP	0	0.0.0.0	8	TCP	0	0.0.0.0
9	TCP	0	0.0.0.0	10	Netmeeting User		0.0.0.0

MAC Filtering Machine that have specified MAC address cannot access network

MAC Filtering Support  Disable  Deny  Allow

1	00:00:00:00:00:00	2	00:00:00:00:00:00	3	00:00:00:00:00:00
4	00:00:00:00:00:00	5	00:00:00:00:00:00	6	00:00:00:00:00:00

DMZ Server Open the client PC to public

Local client IP address of Virtual DMZ Server

Blocking WAN Ping Deny ping request with WAN IP address from hacker

Do not response to ping request with WAN IP address  Allow  Deny

Firewall Support	Enable/Disable built-in firewall feature.
Client Filtering	Local Client PC group can not access specified remote application.
Packet Forward	Enable specific ports to be opened for specific applications.
MAC Filtering	Block specific MAC addresses.
DMZ Server	Open a virtual server to public.
Blocking WAN Ping	Do not response to ping request with WAN IP address.
APPLY	Click APPLY to apply any of the Security setting changes.



## Status



Local Area Network	
Link Status	<i>Running</i>
H/W Address	<i>20:61:78:65:73:73</i>
MTU	<i>1500</i>
Tx Packet	<i>625</i>
Rx Packet	<i>637</i>

Wide Area Network (Dial PPP)			
Link Status	<i>Stopped</i>	MTU	<i>0</i>
My IP	<i>0.0.0.0</i>	Remote IP	<i>0.0.0.0</i>
Tx Packet	<i>0</i>	Rx Packet	<i>0</i>

Local Area Network	Current operation and connection status of LAN.
Wide Area Network	Current operation and connection status of WAN.



## Troubleshooting

### General

- Check for the appropriate power indication on the LED. If no power, check the adaptor (or External Power Supply) connection between the electrical outlet and the modem.

### I can't get good signal. My connection is unstable.

- Check for the Signal LED. If off, there is no service coverage. (Out of service area)
- Two antennas should be firmly connected to the unit. For some reason, only one is to be used, always connect to the right side, which is for receive and transmit. The left antenna is only for receiving.
- If Signal LED is showing red, it means current signal is weak. Try placing EV-DO modem at different locations or Rotating EV-DO modem to different direction. Avoid areas with high level of radio interference.

### I can't connect to the Internet.

- If using the Ethernet cable, check TCP/IP settings of your PC and make sure your PC is obtaining IP address automatically from the EV-DO Modem. Refer to "TCP/IP Settings" section of this manual.
- If using the USB cable, check that you are using the correct Modem, correct user name and password.

### My PC is set to obtain IP address automatically as instructed in the manual but I can't access the Web.

- Make sure the TCP/IP setting is also set to "obtain DNS server address automatically". Please refer to "TCP/IP Settings" section for more information.

### Q. How do I renew PC's IP in Windows system?

1. Click Start and Click Run.
2. Type cmd in the prompt and click OK.
3. In Command Prompt (C:\), type ipconfig/release and press Enter.
4. In Command Prompt (C:\), type ipconfig/renew and press Enter.
5. Exit the Command Prompt. Now your IP is renewed.



## Specifications

Categories		Specifications
Frequency Range	AXW-D800	TX: 824.64~848.37 MHz RX: 859.64~893.37 MHz
	AXW-D1900	TX: 1850.00~1909.95 MHz RX: 1930.00~1989.95 MHz
Operation Temperature		-20 ~ +50 °C
Operation Humidity		5% ~90%
AC Adaptor		Input: AC 110~240V, 50~60 Hz
		Output: DC 9V, 1A
Dimension		160 (L) x 197 (W) x 50 (H) mm
Weight		540 g