



5-Static/Public IP

D2/iDirect User Guide

v.1

 **MotoSAT**

LM-03.31.05

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This operations guide is for the DataStorm D2/iDirect modem setup. These instructions must be followed in order to ensure proper functioning. This guide is a companion to the DataStorm D2 User Guide. This guide outlines specific D2/iDirect functionality. Check www.motosat.com for further updates.

Step 1: Finding the iDirect modem's IP Address

| The iDirect Modem's IP Address |

This step details the process of connecting to the iDirect modem and retrieving its IP address.

- > Turn on your computer and connect your computer's serial port [if no serial port is available on your computer please use a Serial-to-USB adapter] to the iDirect modem's console port.
- > Now you must connect with HyperTerminal:
 - | Open HyperTerminal [Start>All Programs>System Tools>Communications]
 - | Name the connection 'iDirect'
 - | Connect using an available COM port
 - | Port Settings are as follows:
 - Bits per second: 4800 [9600 in non-mobile mode]
 - Data bits: 8
 - Parity: none
 - Stop bits: 1
 - Flow control: none

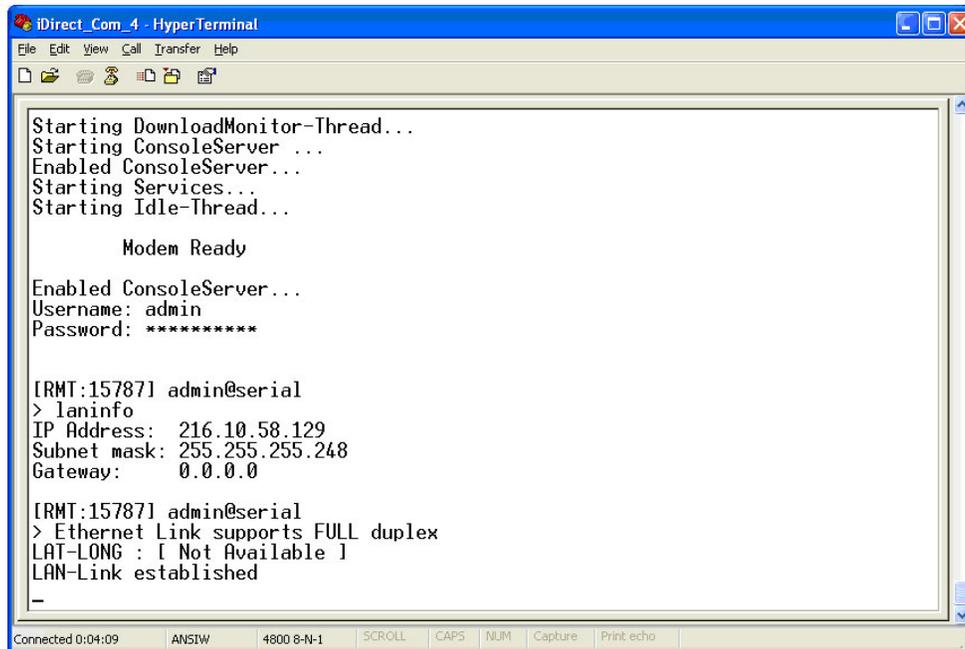


> Click 'OK'

Step 1: Finding the iDirect modem's IP Address Cont.

| The iDirect Modem's IP Address Cont. |

- > When the user name and password prompt appears:
 - | User Name: admin
 - | Password: [Your password is provided by your iDirect paperwork or by your iDirect ISP]
- > When able to type commands you will see only a '>' symbol.
- > To find the iDirect's IP address type in the command 'laninfo' all one word.
- > This command will pull up the iDirect modems IP address information. This information will be used to configure your router [you may use a switch only if you have a 5 IP address iDirect package]:



```
iDirect_Com_4 - HyperTerminal
File Edit View Call Transfer Help
Starting DownloadMonitor-Thread...
Starting ConsoleServer ...
Enabled ConsoleServer...
Starting Services...
Starting Idle-Thread...

Modem Ready

Enabled ConsoleServer...
Username: admin
Password: *****

[RMT:15787] admin@serial
> laninfo
IP Address: 216.10.58.129
Subnet mask: 255.255.255.248
Gateway: 0.0.0.0

[RMT:15787] admin@serial
> Ethernet Link supports FULL duplex
LAT-LONG : [ Not Available ]
LAN-Link established

Connected 0:04:09 ANSISW 4800 8-N-1 SCROLL ICAPS NUM Capture Print echo
```

- > Write these down for future reference and go to step 2.

Step 2: Configuring your Network

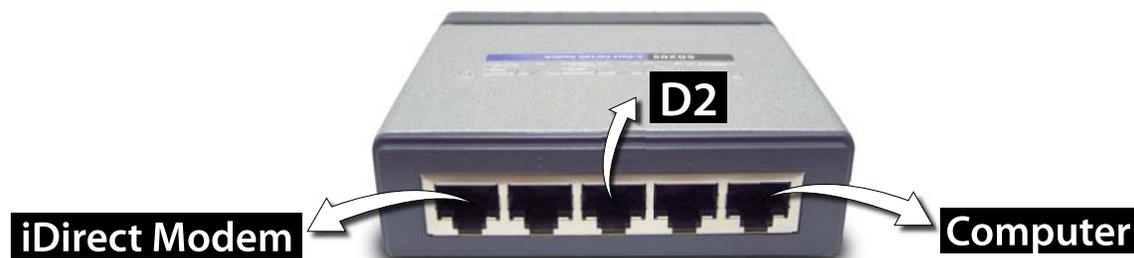
| Configuring your Network |

- > The D2, iDirect modem, and your computer[s], will all connect via Ethernet into switch.

Step 2: Configuring your Network Cont.

| Configuring your Network Cont. |

- > You must configure your computer to 'talk' to both the D2 and iDirect modem.
- > With 5 IP addresses at your disposal, the computer will receive one of these addresses [the remaining addresses can be configured however you like; i.e. router, more computers, etc.]. Below is a diagram of the physical connections via a switch:

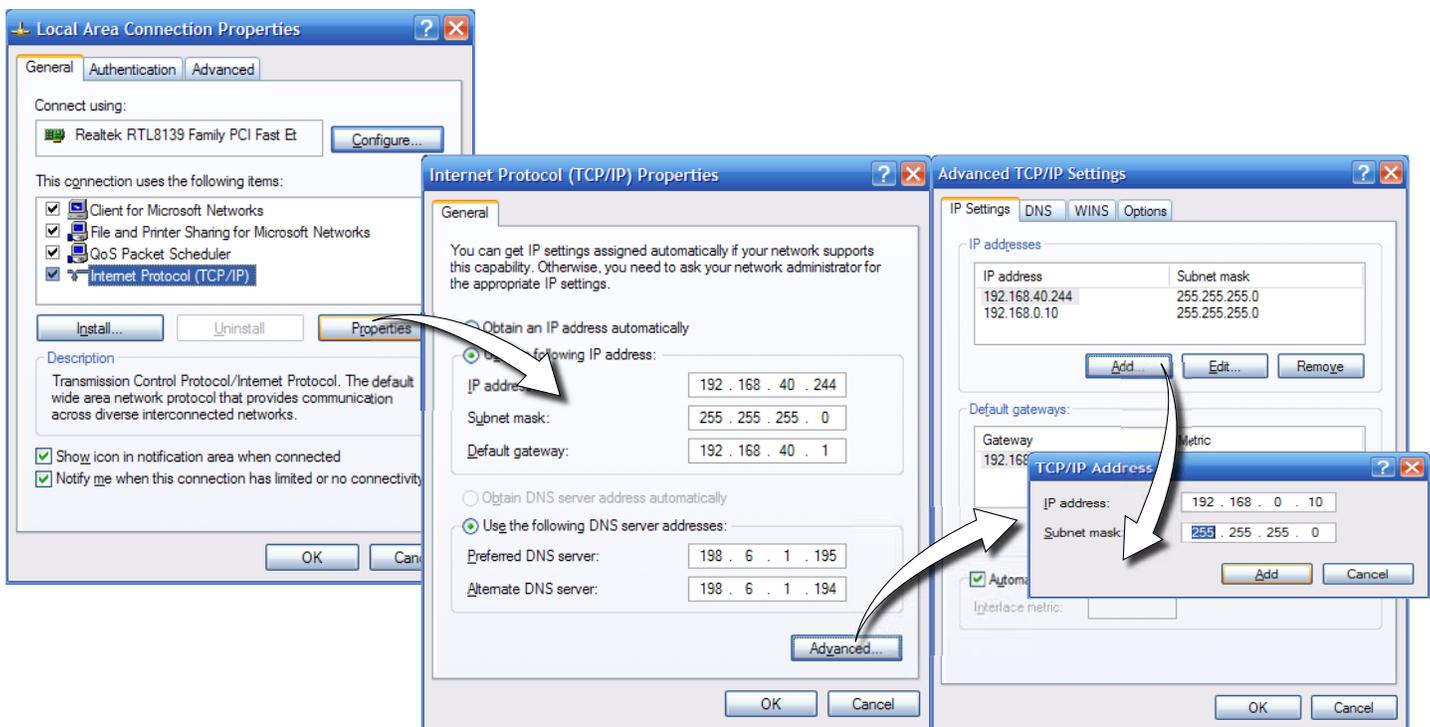


- > Initially you must also configure your computer to talk to the D2. The D2 by default is set up with an address of: 192.168.0.250. You can configure your computer to see the D2 by default and the D2 and iDirect modem after changing IP addresses. This is done by configuring the computers network connection with two different IP addresses at once.
- > Click Start>Control Panel> Network Connections
- > Right click the network connection that is connected to the D2/iDirect network and click properties.
- > Highlight Internet Protocol [TCP/IP], and click Properties.
- > Change both radio buttons to the "Use the following..." prefix in order to input manual settings.
- > Type in one of the static IP addresses from the 5 received from iDirect.
- > Type in the subnet as: 255.255.255.0
- > Type the iDirect modem IP address for the Gateway.
- > Type in the DNS addresses given to you by your iDirect ISP.
- > After inputting these settings click the Advanced button.
- > Click the first Add button under IP Addresses and input 192.168.0.10 with a subnet of 255.255.255.0.
- > When this is done click the Add button to add this secondary address. Now click OK to close out the Advanced address screen, OK again to confirm the iDirect IP settings, then OK once more to confirm all settings.

Step 2: Configuring your Network Cont.

| Configuring your Network Cont. |

- > With your computer setup to talk with the D2 in its default mode and the D2/iDirect mode, you can now move on to configuring the D2.
- > Note the reason, once again, for adding a second address is to be able to 'talk' to D2 in its default mode where the D2's IP address is 192.168.0.250.
- > Below are diagrams of an example-type setup walking through the steps just addressed:



- > Now move on to step 3 in order to configure the D2.

Step 3: Configuring the D2

| Configuring the D2 |

- > If not turned on, turn on the D2 now and wait for the Busy light to stop blinking before starting the D2 configuration process.
- > With you computer configured to the right IP address for the D2 in default mode, open your Internet browser and type in 192.168.0.250.
- > On the system status screen click the configuration link to enter the D2's configuration screen.
- > The main portion of the configuration screen has some settings to change. There are many settings here but focus only on the following:
 - | Satellite system: Needs to be 'iDirect'
 - | Satellite Longitude: [Provided by your iDirect paperwork or by your iDirect ISP]
 - | RX Polarization: [CRITICAL; provided by your iDirect paperwork or by your iDirect ISP]
 - | TX Polarization: [Provided by your iDirect paperwork or by your iDirect ISP]
- > Click 'Update Settings'

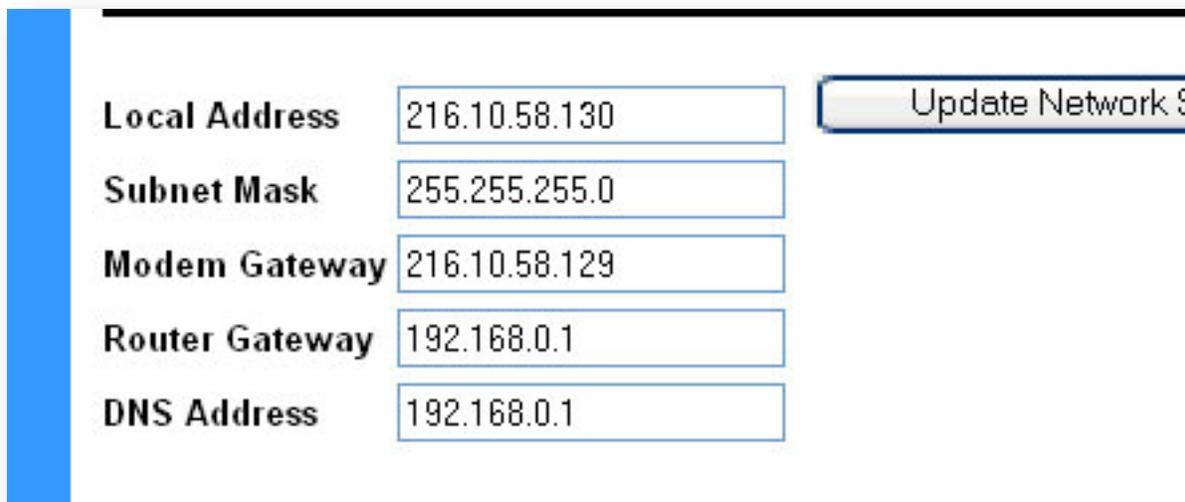
Configure Network Parameters

Satellite System	iDirect	▼	Upd
Satellite Longitude	123W	°	
Frequency	1250	MHz	
RX Polarization	Vertical	▼	
TX Polarization	Horizontal	▼	
Symbol Rate	30000000	symbols/sec	

Step 3: Configuring the D2 Cont.

| Configuring the D2 Cont. |

- > Click the 'Network Settings' link to access the D2's network configuration.
- > Change the following parameters:
 - | Local address: Add another of the iDirect 5 IP Addresses here
 - | Subnet: Leave as is
 - | Modem Gateway: The iDirect modem's IP address
 - | Router Gateway: Leave as is
 - | DNS: Leave as is
- > Click 'Update Settings' and turn off the D2 and continue to Step 4.



Local Address	<input type="text" value="216.10.58.130"/>	<input type="button" value="Update Network S"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>	
Modem Gateway	<input type="text" value="216.10.58.129"/>	
Router Gateway	<input type="text" value="192.168.0.1"/>	
DNS Address	<input type="text" value="192.168.0.1"/>	

Step 4: iDirect Username/Password for the D2

| iDirect Username/Password for the D2 |

- > Turn on the D2's power and wait until the LAN light is on and the BUSY light stops blinking.

Step 4: iDirect Username/Password for the D2 Cont.

| iDirect Username/Password for the D2 Cont. |

- > Click Start>Run>telnet [D2's IP Address]>OK
 - > A prompt will appear with the DATASTORM %
 - > You will now need to set the username and password in the D2. The commands are:
 - | setvalue modemUsername admin , [hit enter]
 - | setvalue modemPassword [your iDirect modem password] , [hit enter]
- [If your password is different please enter it here]



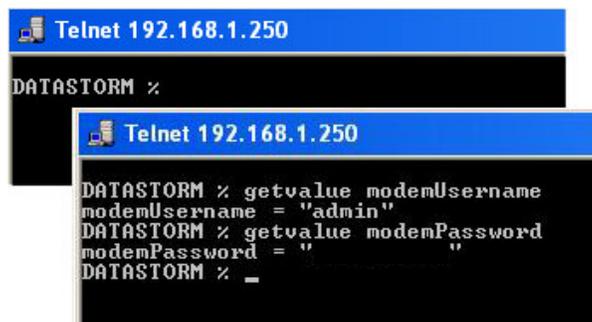
```
Telnet 192.168.1.250
DATASTORM %
Telnet 192.168.1.250
DATASTORM % setvalue modemUsername admin
modemUsername = "admin"
DATASTORM % setvalue modemPassword P@55w0rd!
modemPassword = " "
DATASTORM % _
```

- > Exit [Close] the telnet prompt.
- > Here are a few tips on these commands:
 - | The commands:

- getvalue modemUsername
- getvalue modemPassword

Can be used to determine the current username and password stored in the D2.

| These parameters are stored in Non-Volatile RAM [memory that can be erased and written to via commands]. If ever an NVCLEAR is performed [where the D2's Non-Volatile RAM is erased], you will need to run through these commands again.



```
Telnet 192.168.1.250
DATASTORM %
Telnet 192.168.1.250
DATASTORM % getvalue modemUsername
modemUsername = "admin"
DATASTORM % getvalue modemPassword
modemPassword = " "
DATASTORM % _
```

- > Now move on to Step 5.

Step 5: Searching for the Satellite

| Searching for the Satellite |

- > Open your internet browser and type in the new IP address of the D2 [in this case 192.168.1.250].
- > The D2's status page will appear. There are two things you could see:
 - | A good search screen will show a '0' next to signal quality, TX status will read 'Transmitter unavailable due to receive signal problem', RX will read 'Receiver not locked to a signal'.
 - | A screen that reads error-25 indicates the D2 is waiting for the modem. This is temporary and will refresh to be able to search.
- > After confirming the system status readings you need to make sure the status buttons read good for a satellite search:

LNB**LAN****GPS****READY****BUSY****STOW**

- > The LNB, LAN, GPS, and STOW* lights should be lit.
 - *[Stow can only be lit if a stow operation has been done.]
- > With all these criteria met you can now click 'Search'.
- > During a search, signal quality will read '0'. If you see ANY signal quality, you're on the right satellite and the DataStorm will peak accordingly with typical high signal quality.
- > When the DataStorm has finished peaking, the system status will read 'Search Operation Completed' and the 'Ready' light will be lit. This indicates that a connection to the Internet has been attained.

The iDirect Modem's network light will stay solid when connected to the Internet.

This concludes the D2/iDirect Guide.

**For additional help on connecting to the Internet
or other Internet related questions, contact your iDirect ISP**

MotoSAT | www.motosat.com | 1-800-247-7486

