



INSTALLATION GUIDE

Mobile Data Computer for Communication with the IP Series Mobile Radio

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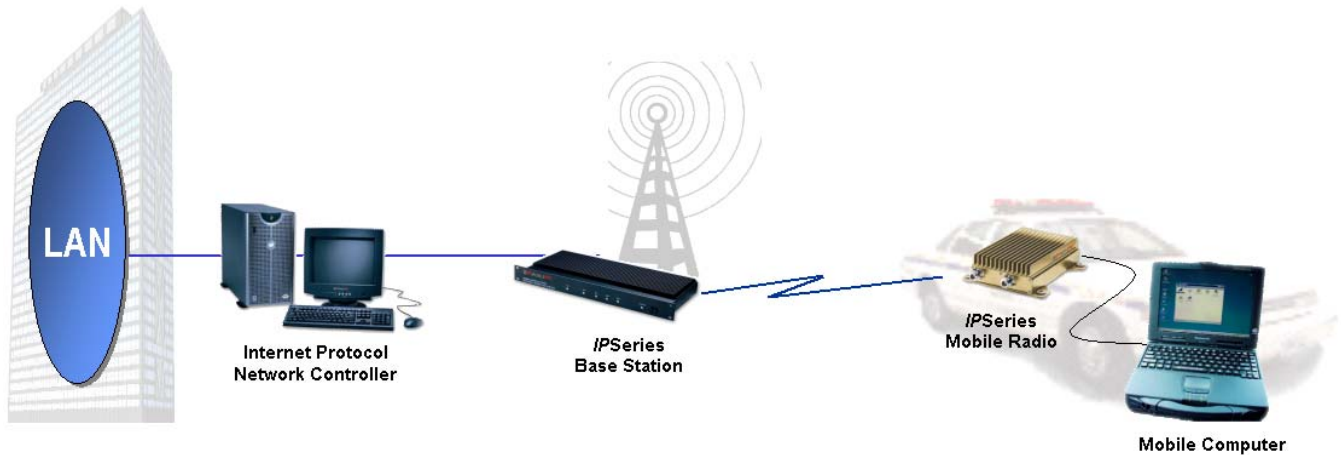
IPMN p/n: 516.80310.IG
Version: A

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Mobile Data Computer-to-Mobile Radio Illustration



Installation Requirements

Mobile Radio-to-MDC

- MDC (Mobile Data Computer) with an available serial communication port and Windows 98[™] or greater installed
- *IPMobileNet* (IPMN) *IPSeries* Mobile Radio
- 20-foot serial cable DB9F – DB9M (BlackBox p/n: EDN12J-0020-MF) to connect MDC to the mobile radio
- *IPMobileNet* Radio SLIP Port Driver Installation diskette (SLIP2IPMN.exe)
- IPNC (Internet Protocol Network Controller) VoiceServer Address

Mobile Radio-to-VIU-to-MDC

(Refer to illustration and instructions on pages 18-19)

In addition to the above, the following components will be required for adding a Voice Interface Unit (VIU) to the configuration:

- VIU (Voice Interface Unit)
- 10-foot serial cable DB9F – DB9M (BlackBox p/n: EDN12J-0010-MF) to connect VIU to the mobile radio (included)

NOTE:

IP Addressing is site-dependent.

SLIP2IPMN Dial-up Network Connection Installation

This section provides step-by-step instructions on how to install the IPMN Radio SLIP Port Driver onto the MDC for connection to an IPMN *IPSeries* Mobile Radio. This setup will also facilitate adding a VIU to the configuration. It will also provide instructions on configuration and settings for the SLIP port to function properly.

NOTE: The screens shown were captured using Windows 98™. Differences between Windows versions will be noted.

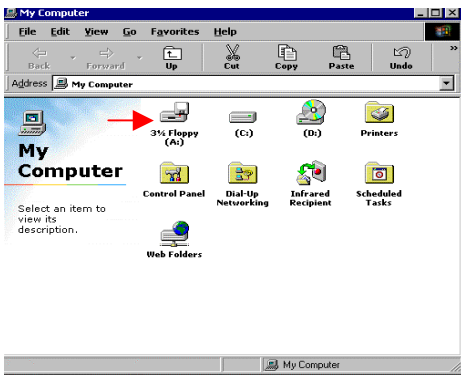
Step 1 At the computer desktop, double click on the **My Computer** icon.



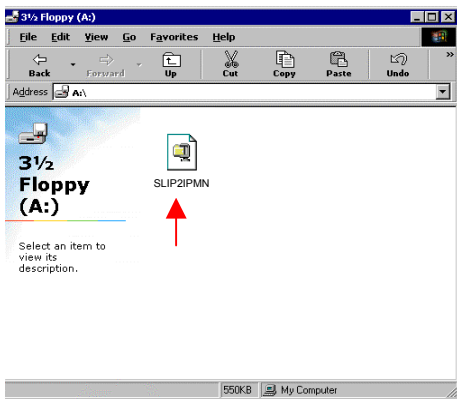
Step 2 Insert the IPMN Radio SLIP Port Driver Installation diskette labeled **SLIP2IPMN.exe** in the floppy drive.



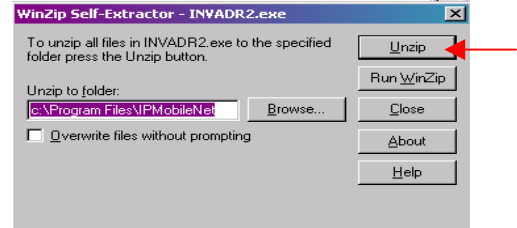
Step 3 Double click on the **A:** drive.



Step 4 Double click on the **SLIP2IPMN** file.



Step 5 At the WinZip Self-Extractor window, click on the **Unzip** button to begin the unzip process.

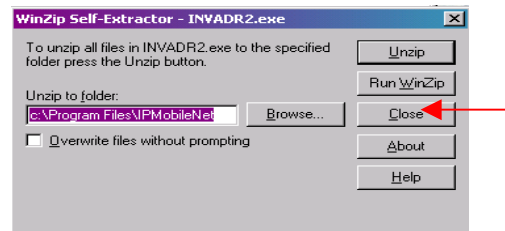


NOTE: The zipped file will self-extract and install the radio port driver files on the MDC.

Step 6 Click on the **OK** button after self-extraction is complete.



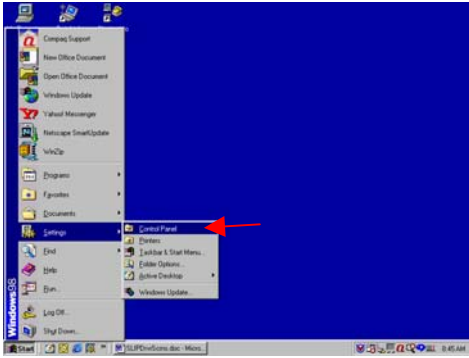
Step 7 Click on the **Close** button to continue.



Step 8 Close the A:\ drive folder by clicking on the **X** at the top right-hand corner of the window.



Step 9 At the desktop click on the **Start** button, select **Settings**, and **Control Panel**.

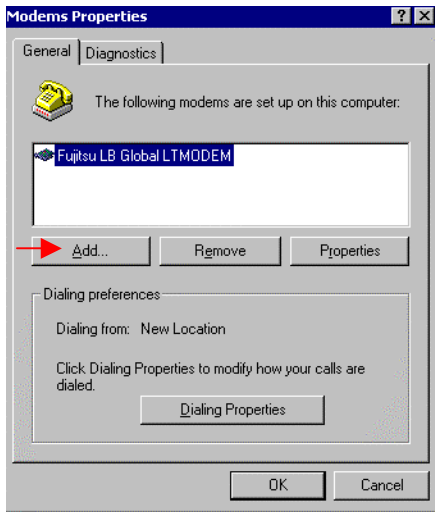


Step 10 Double click on the **Modems** icon.



For Windows 2000 & XP, click on the Phone and Modem Options icon.

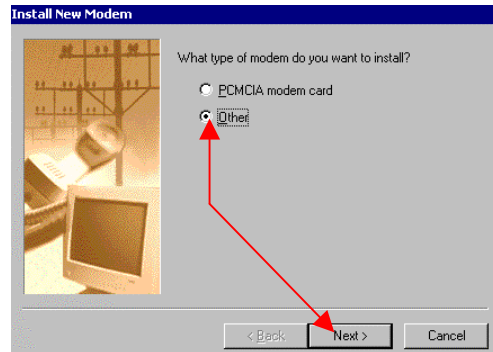
Step 11 In the Modem Properties window, under the General tab, click on the **Add...** button to add a modem.



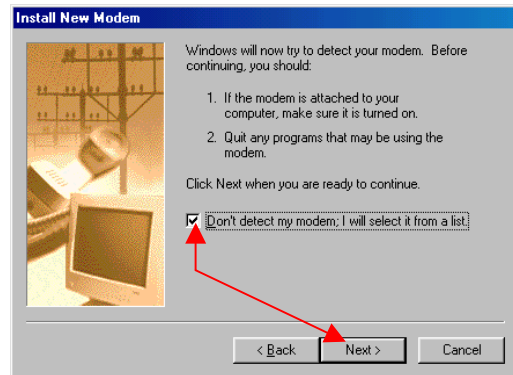
For Windows 2000 & XP, on the Phone and Modem Options window, under the Modems tab, click on the Add... button.

For Windows Me, 2000, XP & NT, skip to Step 13 on this page.

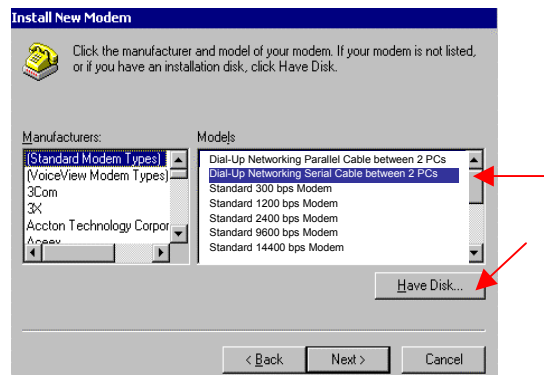
Step 12 On the Install New Modem window, select **Other**, then click on the **Next >** button.



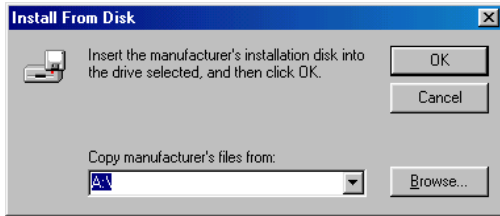
Step 13 On the next Install New Modem window, select **Don't detect my modem**, then click on the **Next>** button.



Step 14 On the next Install New Modem window, click on the **Have Disk...** button.



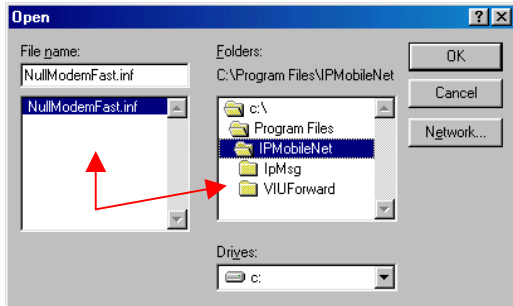
Step 15 On the Install From Disk window, click on the **Browse...** button.



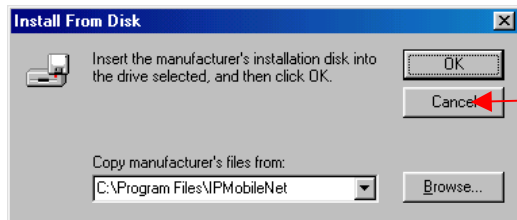
Step 16 In the Open window, select the following path:

C:\Program Files\IPMobileNet

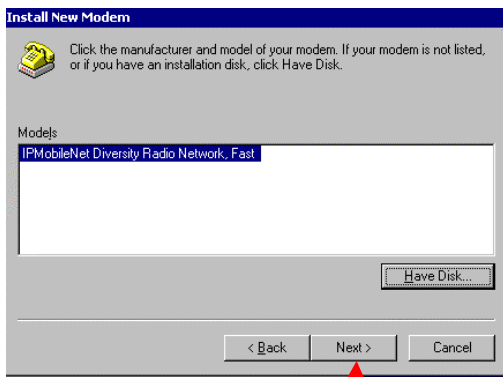
Click on the **NullModemFast.inf** file, then click on the **OK** button (or in some cases the **Open** button).



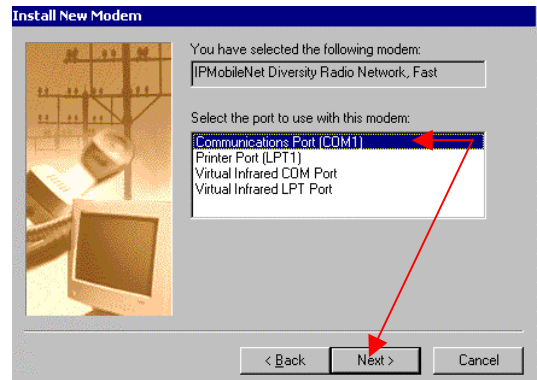
Step 17 On the Install From Disk window, click on the **OK** button.



Step 18 On the Install New Modem window (or in some cases Add New Hardware Wizard window), click on the **Next>** button to continue.

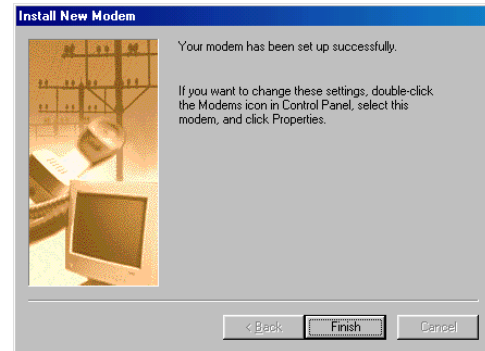


Step 19 On the next Install New Modem window, under Select the port to use with this modem: select **Communication Port (COM1)** or the next available COM port, then click on the **Next>** button.

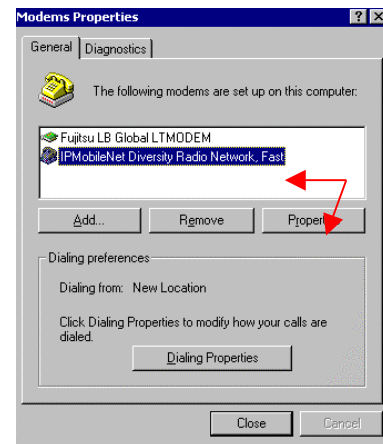


*For Windows 2000 & XP, a Digital Signature message may display. Click on the **Yes** button to continue.*

Step 20 On the next Install New Modem window, once install is complete, click on the **Finish** button.



Step 21 On the Modems Properties window, under the General tab, under The following modems are set up on the computer: select **IPMobileNet Diversity Radio Network, Fast** and click on the **Properties** button.

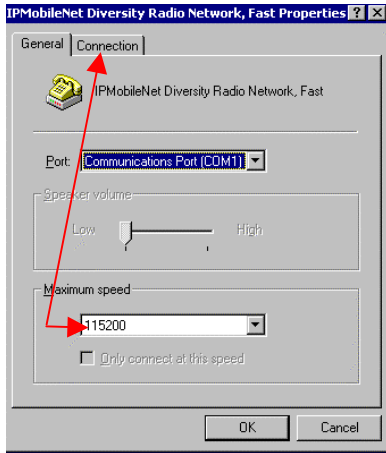


*For Windows 2000 & XP, under the Modems tab, highlight **IPMobileNet Diversity Radio, Fast** and click on the **Properties** button.*

Modem Settings

Step 1 On the IPMobileNet Diversity Radio Network, Fast Properties window, under the General tab, make sure that the Maximum speed is set to **115200**.

Click on the **Connection** tab.

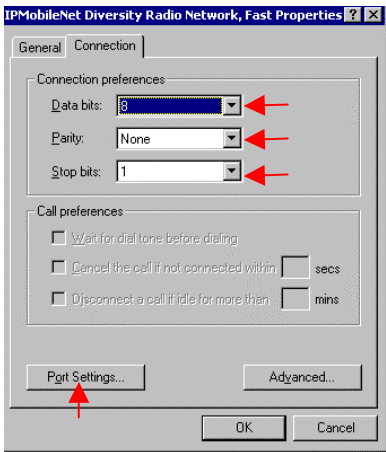


*For Windows 2000 & XP, click on the **Advanced** tab. Click on the **Change Default Preferences...** button and then on the **Advanced** button and continue to Step 2.*

Step 2 Under the Connection tab, ensure that the following settings are selected:

- Data bits: **8** Parity: **None** Stop bit: **1**

Click on the **Port Settings...** button.

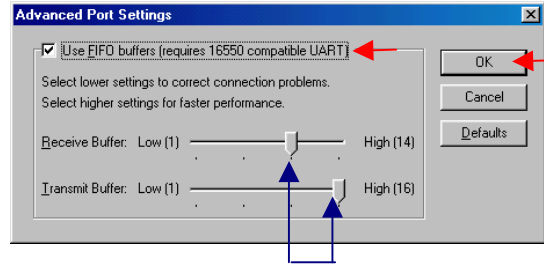


*For Windows 2000 & XP, after verifying the Connection preferences, click on the **OK** button three (3) times and close the windows by clicking on the **X** in the upper right-hand corner of the windows. Go to the 'SLIP2IPMN Dial-up Network Settings' for Windows 2000 section on page 10 of this document.*

For Windows NT, skip to Step 4 on this page.

For Windows XP, skip to Page 16.

Step 3 On the Advanced Port Settings window, select **Use FIFO buffers (requires 16550 compatible UART)**.



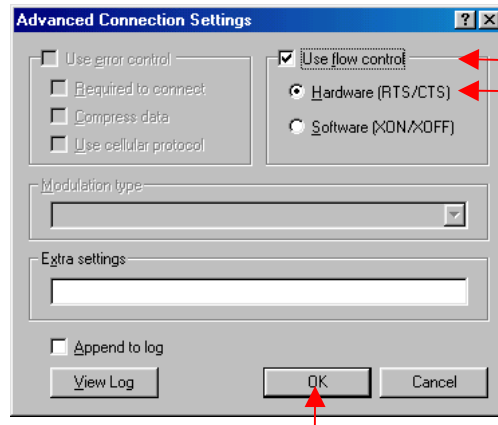
*The **Receive Buffer** should be set to **High** approximately on the third notch, as shown above.*

*The **Transmit Buffer** needs to be set higher than the **Receive Buffer** on the last notch as shown above or to **Maximum**.*

Click on the **OK** button.

Step 4 Under the Connection tab, click on the **Advanced...** button.

Select the **Use flow control and Hardware (RTS/CTS)**, then click on the **OK** button, click on **OK** again, then click on the **Close** button.



The Control Panel Window will display.
Close the Control Panel window.

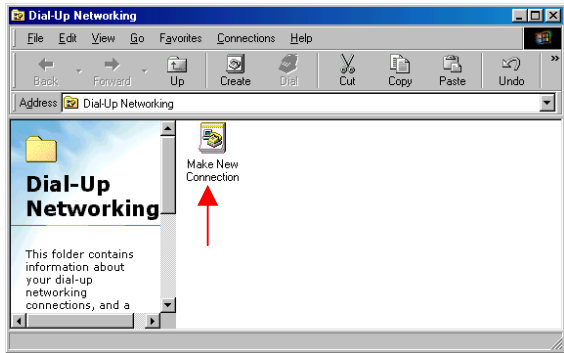
*For Windows NT, at the Modem Properties window, click on the **Close** button and go to 'SLIP2IPMN Dial-up Network Settings' for Windows NT on page 13.*

SLIP2IPMN Dial-up Network Settings for Windows 98/Me

Step 1 At the desktop, click on the **Start** button, select **Programs, Accessories, Communications,** and **Dial-Up Networking.**



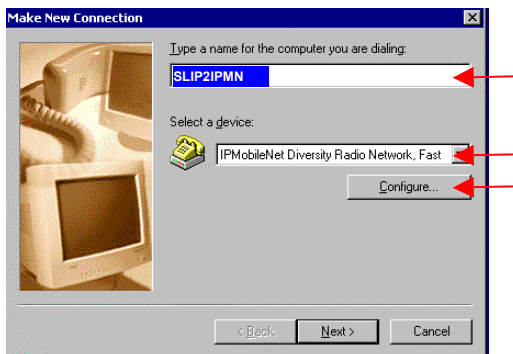
Step 2 On the Dial-Up Networking window, double click on the **Make New Connection** icon.



Step 3 On the Make New Connection window, under Type a name for the computer you are dialing: type

SLIP2IPMN

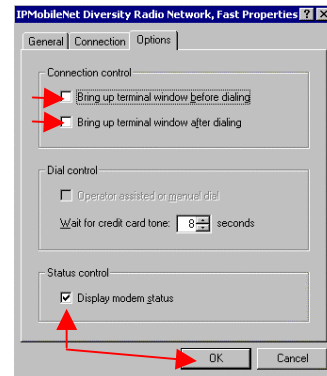
Under Select a device: select **IPMobileNet Diversity Radio Network, Fast** and click on the **Configure...** button.



Step 4 On the IPMobileNet Diversity Radio Network, Fast Properties window, click on the **Options** tab.

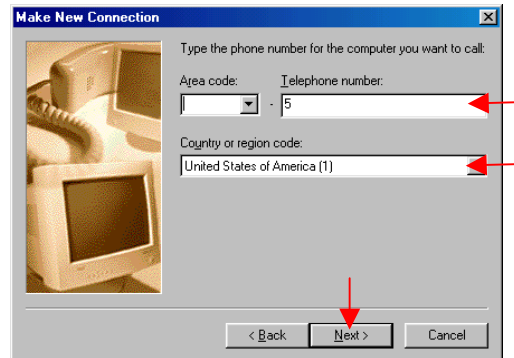
Under the Options tab, under Status control, make sure that Bring up terminal window **before** dialing and Bring up terminal window **after** dialing are **not** selected.

Select **Display modem status** and click on the **OK** button.

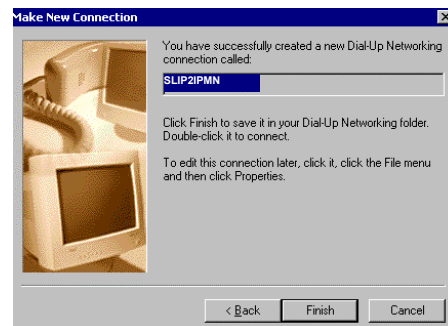


Step 5 On the Make New Connection window, click on the **Next>** button to continue.

Step 6 On the next Make New Connection window, leave the Area code field blank. In the **Telephone number** field type in a **5** and leave the Country set to USA. Click on the **Next>** button.



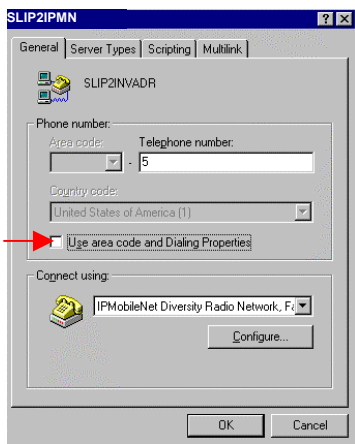
Step 7 On the next Make New Connection window, click on the **Finish...** button and the new connection is created.



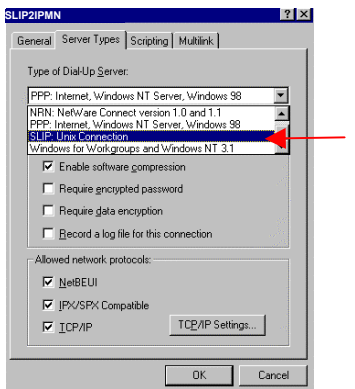
Step 8 Right click on the **SLIP2IPMN** connection and select **Properties**.



Step 9 On the SLIP2IPMN window, under the General tab, deselect **Use area code and Dialing Properties**.

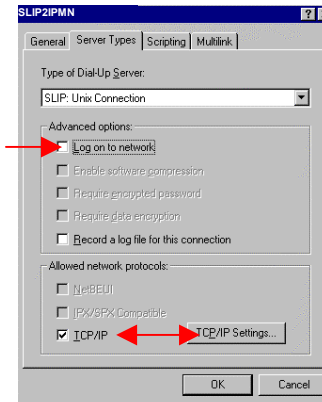


Step 10 Under the Server Types tab, under Type of Dial-Up Server: select on **SLIP: Unix Connection**.



For Windows Me, use the **Networking** tab.

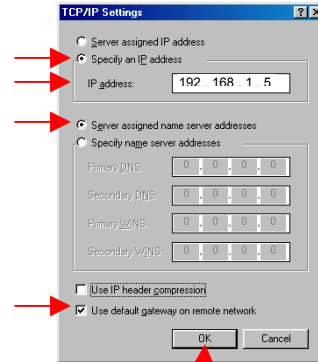
Step 11 Under Advanced options: deselect **Log on to network**. Under Allowed network protocols: select **TCP/IP**, then click on the **TCP/IP Settings...** button.



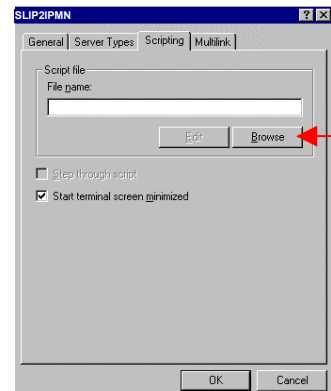
Step 12 On the TCP/IP Settings window, select **Specify an IP address**. In the **IP address** field, enter the **MDC IP address**. This IP address should conform to the address table established by the system administrator.

NOTE: The MDC, VIU, and Radio IP addresses must be unique.

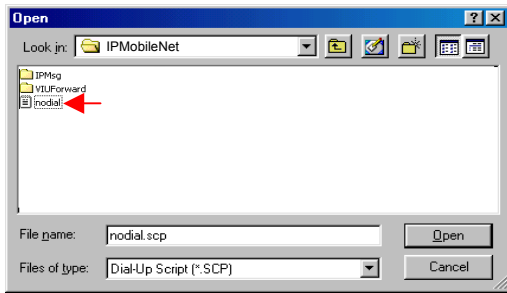
Then select **Server assigned name server addresses** and deselect **Use IP header compression**. Select **Use default gateway on remote network**. Click on the **OK** button to continue.



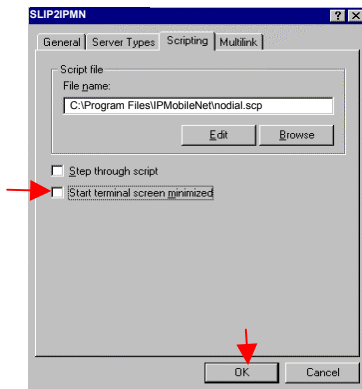
Step 13 On the **SLIP2IPMN** window, click on the **Scripting** tab and click on the **Browse...** button.



Step 14 Change the path to **C:\Program Files\IPMobileNet**, select file **nodial.scp**, and click on the **Open** button.

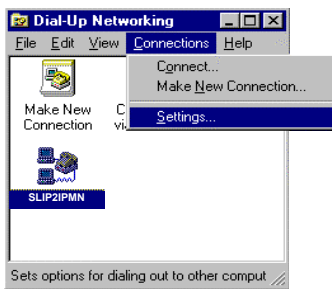


Step 15 On the **SLIP2IPMN** properties window, deselect **Start terminal screen minimized** and click on the **OK** button.

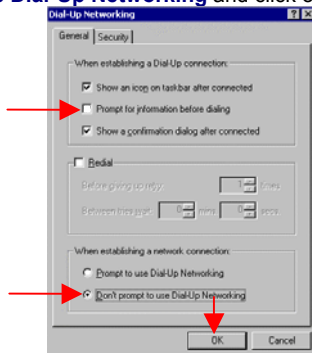


For **Windows Me**, click on the **Dialing** tab and select **This is the default Internet connection** and skip Steps 16 and 17.

Step 16 Click once on the **SLIP2IPMN** icon. Click on **Connections** and **Settings...** from the menu.



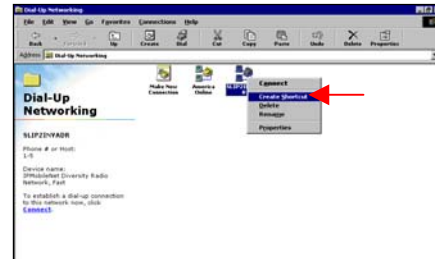
Step 17 On the **Dial-Up Networking** window, deselect **Prompt for information before dialing**, select the **Don't prompt to use Dial-Up Networking** and click on **OK**.



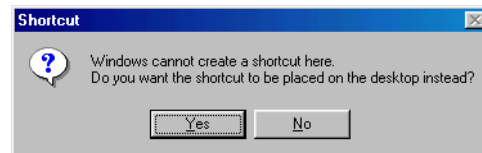
Creating a SLIP2IPMN Session Shortcut for Win 98/Me

NOTE: Follow Step 1 on Page 7.

Step 1 At the **Dial-Up Networking** folder, right click on the **SLIP2IPMN** connection and click on **Create Shortcut**.

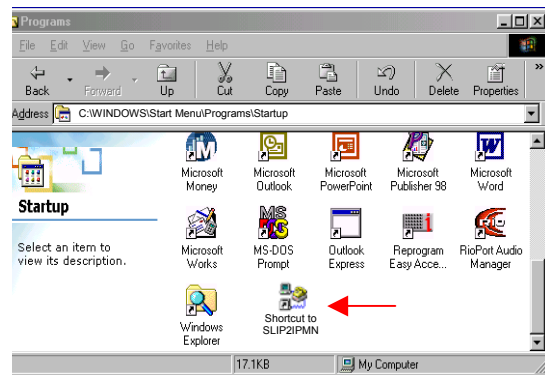


Step 2 When prompted to place the shortcut on the desktop, click on the **Yes** button.



Step 3 Add a copy of the **SLIP2IPMN** connection in the following path:

C:\Windows\Start Menu\Programs\Startup



This completes your Dial-up Networking installation.

To test, check the serial cable connection to the radio. Double click on the **SLIP2IPMN** connection icon. A network connection will display at the bottom right hand of the desktop screen indicating the connection is successful.



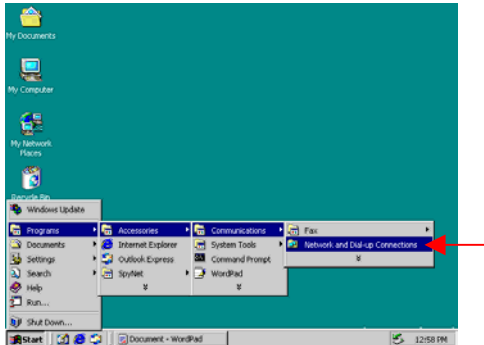
Proceed to 'MDC-to-Radio Connection & Settings' on page 16.

SLIP2IPMN Dial-up Network Settings for Windows 2000

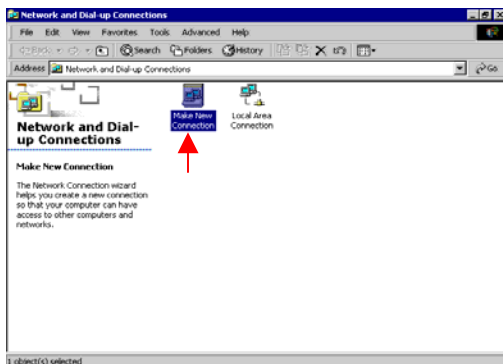
Step 1 The Administrator must sign onto the system and perform the installation.

NOTE: When creating shortcuts, make sure to place in 'All Users' and permission granted to 'All Users' for use.

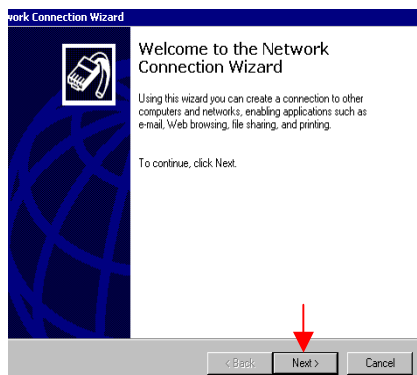
Step 2 At the desktop, click on the **Start** button. Select **Programs, Accessories, Communications, and Network and Dial-up Connections**.



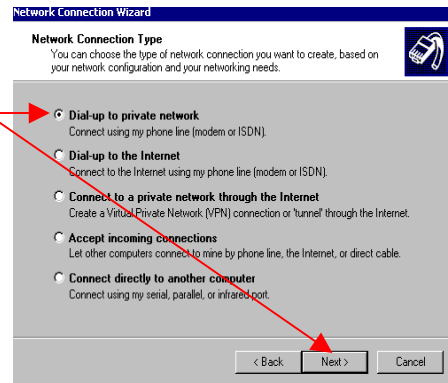
Step 3 Double click on the **Make New Connection** icon.



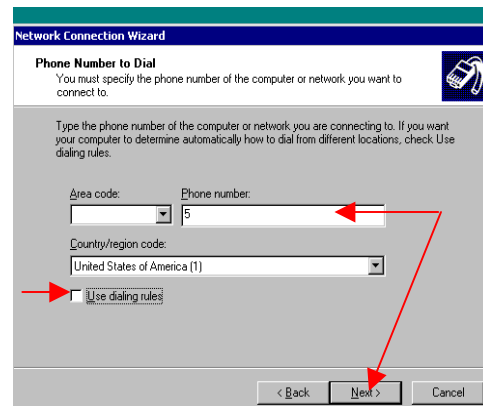
Step 4 At the Network Connection Wizard window, click on the **Next>** button.



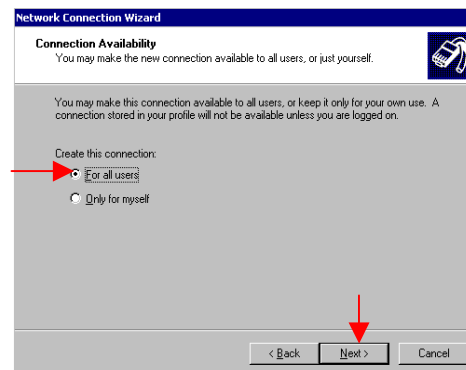
Step 5 Under Network Connection Type, select **Dial-up to private network** then click on the **Next>** button.



Step 6 Under Phone Number to Dial, in the Phone number field, enter a **5** and deselect **Use dialing rules** and click on the **Next>** button.



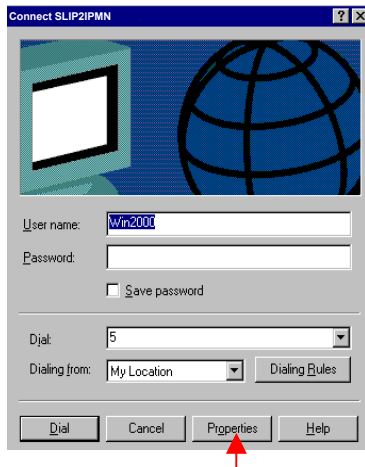
Step 7 Under Connection Availability, ensure that the **For all users** is selected and click on the **Next>** button.



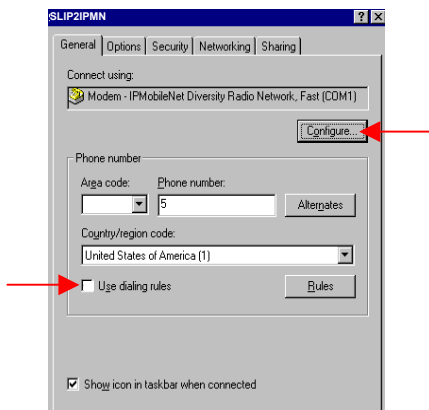
Step 8 Under Completing the Network Connection Wizard, under Type the name you want to use for this connection: type **SLIP2IPMN**. Select **Add a shortcut to my desktop** and then click on the **Finish** button.



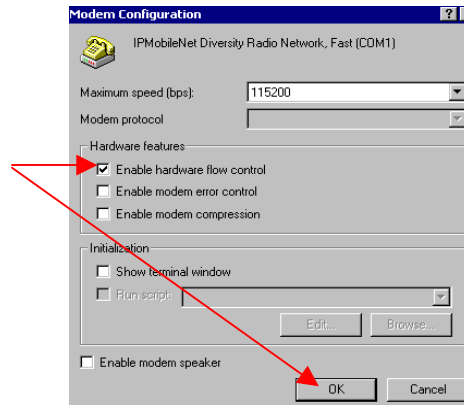
Step 9 On the Connect SLIP2IPMN window, click on the **Properties** button.



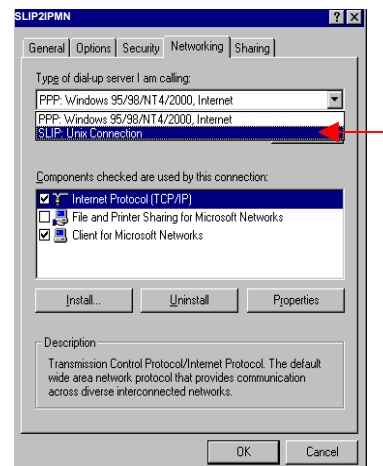
Step 10 On the SLIP2IPMN Properties window, under the General tab, deselect Use dialing rules. Under Connect using: click on the **Configure...** button.



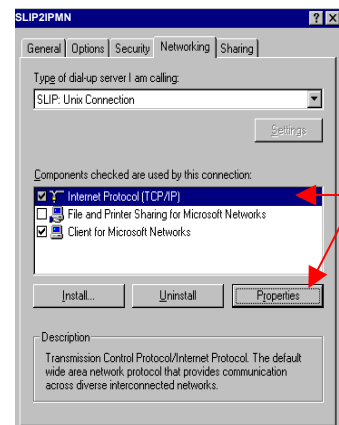
Step 11 Select **Enable hardware flow control** and click on the **OK** button.



Step 12 Click on the **Networking** tab and under Type of dial-up server I am calling: select **SLIP: Unix Connection**.



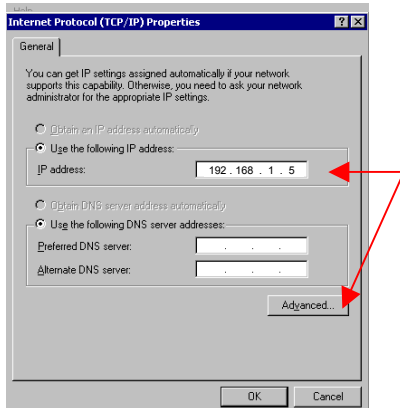
Step 13 Under Components checked are used by this connection: highlight **Internet Protocol (TCP/IP)** and click on the **Properties** button.



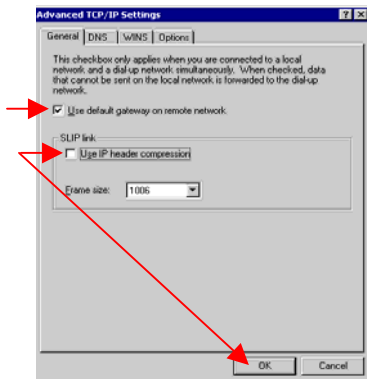
Step 14 Under the General tab, under Use the following IP address: enter the **MDC IP address**. This IP address should conform to the address table established by the system administrator.

NOTE: The MDC, VIU, and Radio IP addresses must be unique.

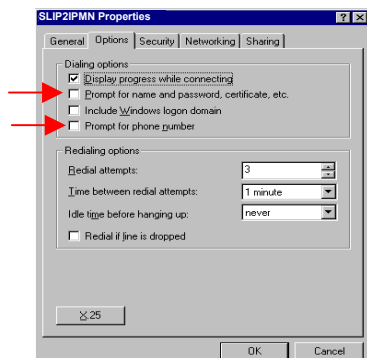
Click on the **Advanced...** button.



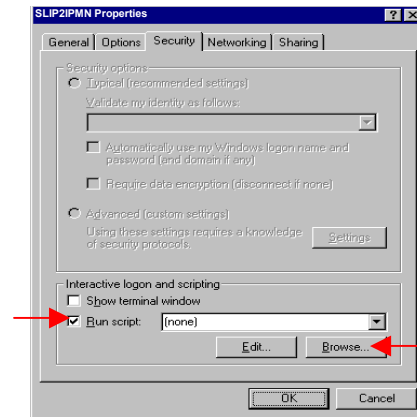
Step 15 Under the General tab, select **Use default gateway on remote network** and deselect **Use IP header compression**. Click on the **OK** button. On the Internet Protocol (TCP/IP) window, click on the **OK** button.



Step 16 On the SLIP2IPMN Properties window, click on the **Options** tab and deselect **Prompt for name and password, certificate, etc.** Deselect **Prompt for phone number**.



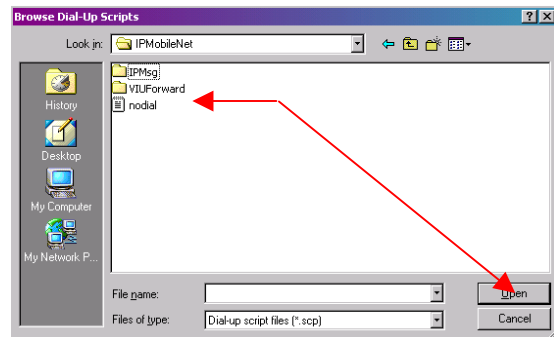
Step 17 Click on the **Security** tab and under Interactive logon and scripting, select **Run script:** and click on the **Browse...** button.



Step 18 Select the following path and file name:

C:\Program Files\IPMobileNet\nodial.scp

Click on the **Open** button. On the SLIP2IPMN Properties window, click on the **OK** button and the properties window will close.



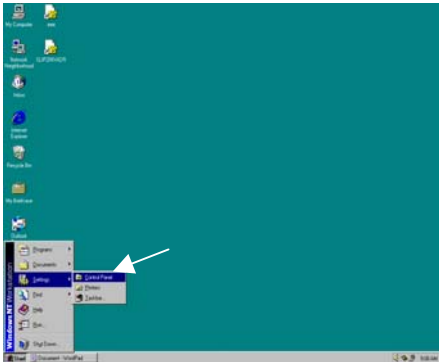
Proceed to 'MDC-to-Radio Connection & Settings' on page 16.

SLIP2IPMN Dial-up Network Settings for **Windows NT**

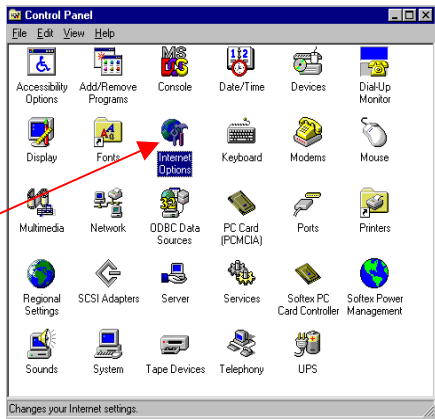
Step 1 The Administrator must sign onto the system and perform the installation.

NOTE: When creating shortcuts, make sure to place in 'All Users' and permission granted to 'All Users' for use.

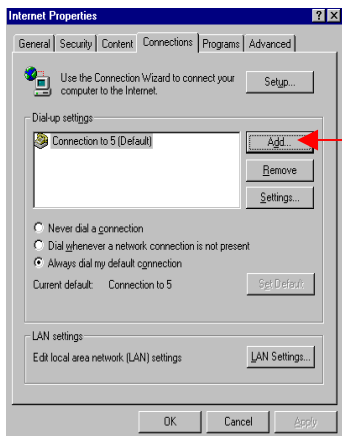
Step 2 At the desktop, click on the **Start** button. Select **Settings** and **Control Panel**.



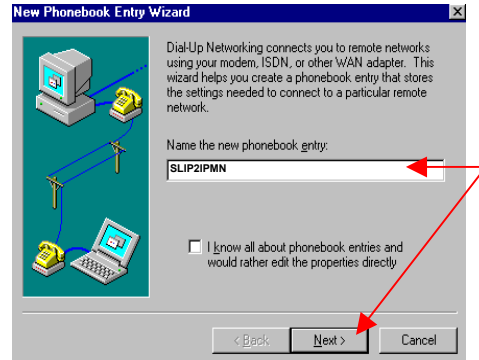
Step 3 Double click on the **Internet Options** icon.



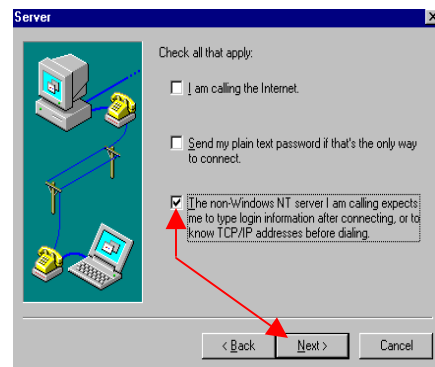
Step 4 On the Internet Properties window, under the **Connections** tab and under **Dial-up Settings**, click on the **Add...** button.



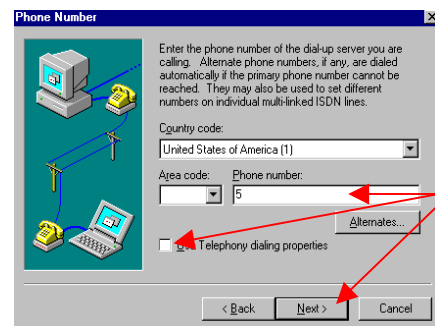
Step 5 On the New Phonebook Entry Wizard window, under **Name** the new phonebook **entry**: enter **SLIP2IPMN**. Deselect **I know all about phonebook entries and would rather edit the properties directly**. Click on the **Next>** button.



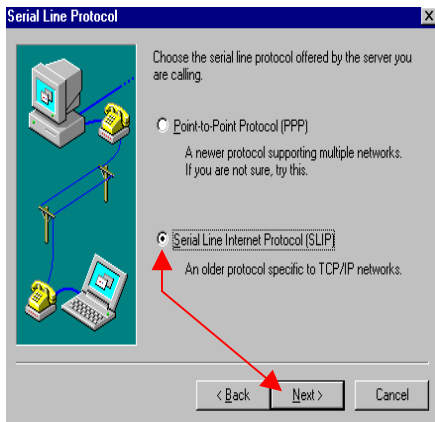
Step 6 On the Server window, select **The non-Windows NT server I am calling expects me to type login information after connecting, or to know TCP/IP addresses before dialing** and click on the **Next>** button.



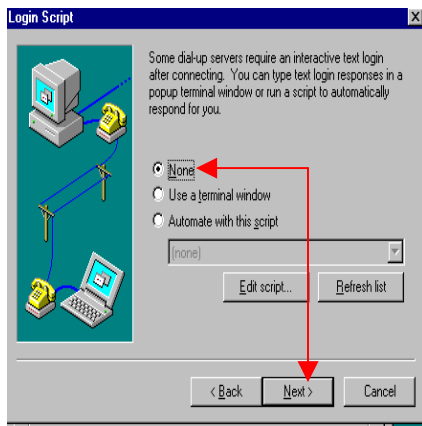
Step 7 On the Phone Number window, deselect **Use Telephony dialing properties**. In the Phone number: field, enter a **5** and click on the **Next>** button.



Step 8 On the Serial Line Protocol window, select **Serial Line Internet Protocol (SLIP)** and click on the **Next>** button.



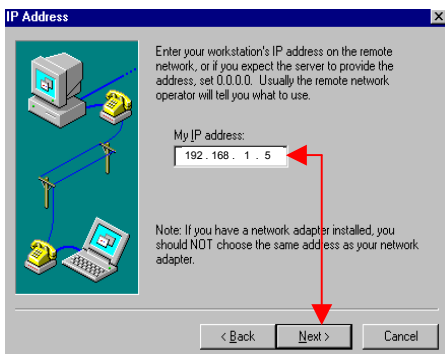
Step 9 On the Login Script window, select **None** and click on the **Next>** button.



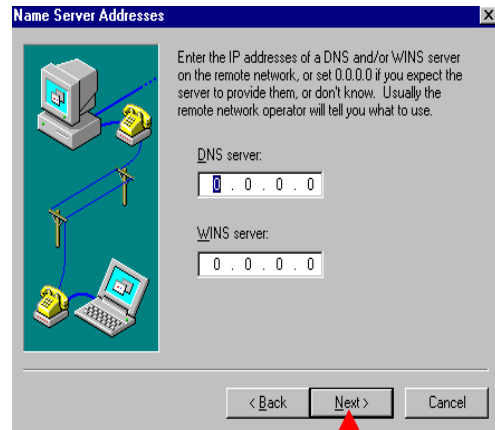
Step 10 On the IP Address window, under My IP address: enter the **MDC IP address** for this connection. This IP address should conform to the address table established by the system administrator.

NOTE: The MDC, VIU, and Radio IP addresses must be unique.

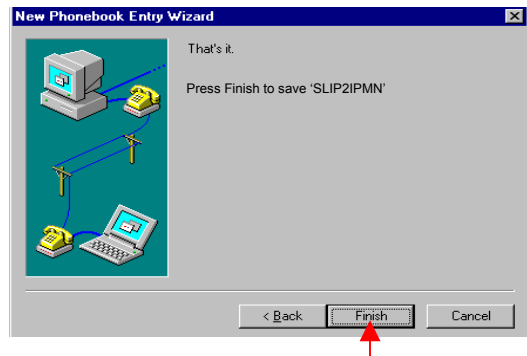
Click on the **Next>** button.



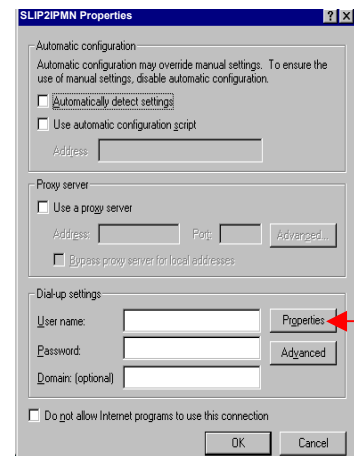
Step 11 On the Name Server Addresses window, click on the **Next>** button.



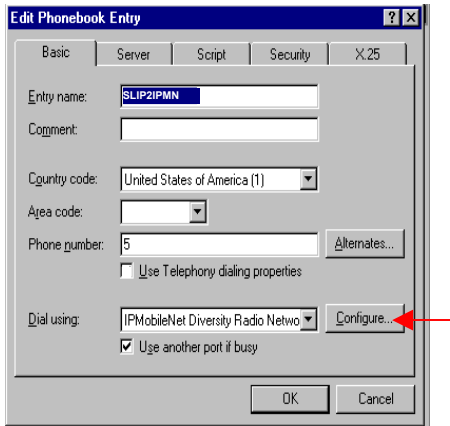
Step 12 On the next New Phonebook Entry Wizard window, click on the **Finish** button to complete creation of the new connection.



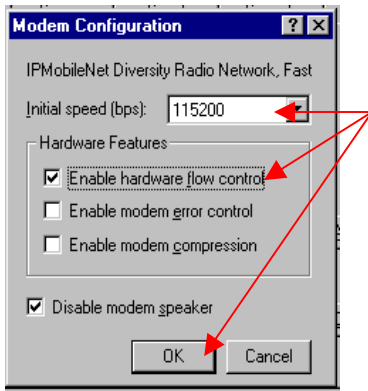
Step 13 On the SLIP2IPMN Settings window, click on the **Properties** button.



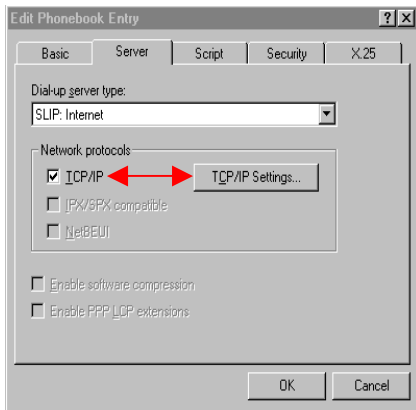
Step 14 Under the Edit Phonebook Entry window, under the Basic tab, click on the **Configure...** button.



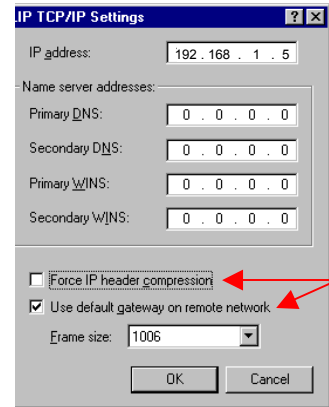
Step 15 Ensure that Initial speed (bps): is set to **115200**. Under Hardware Features, select **Enable hardware flow control** and click on the **OK** button.



Step 16 At the Edit Phonebook Entry window, click on the **Server** tab. Under Dial-up server type: ensure that SLIP: Internet is selected. Ensure that under Network protocols, **TCP/IP** is selected and click on the **TCP/IP Settings...** button.



Step 17 On the SLIP TCP/IP Settings window, deselect Force IP header compression, select **Use default gateway on remote network** and click on the **OK** button.



Step 18 At the Edit Phonebook Entry window, click on the **OK** button.

Step 19 At the SLIP2IPMN Settings window, click on the **OK** button.

Creating a SLIP2IPMN Session Shortcut for Windows NT

Step 1 At the desktop, click on the **Start** button. Select **Programs**, **Accessories**, and **Dial-Up Networking**.

Step 2 In the Phonebook entry to dial: make sure to select **SLIP2IPMN**. Click on the **More** button.

Step 3 Select **Create shortcut to entry...**

Step 4 The Create Dial-Up Shortcut screen displays defaulting to the desktop. Click on the **OK** button. A shortcut icon is created and is placed on the desktop.



NOTE: Add a copy of the SLIP2IPMN connection to the following path:

C:\Documents and Settings\All Users\Start Menu\Programs\Startup

Proceed with 'MDC-to-Radio Connection & Settings' on page 16.

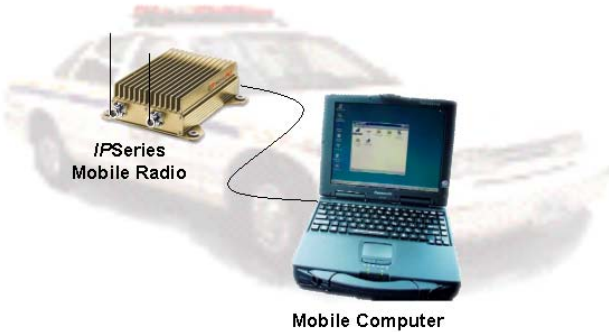
SLIP2IPMN Dial-up Network Settings for Windows XP

- Step 1 At the desktop, right click on the **My Network Places** icon, and select **Properties**.
- Step 2 Click on **'Create New Connection'** and the New Connection Wizard window displays.
- Step 3 Under Network Connection Type, select **Connect to the Internet** and click on the **Next >** button.
- Step 4 Under Getting Ready, select **Setup my Connection Manually** and click on **Next >**.
- Step 5 Under Internet Connection, select **Connect using a dial-up modem** and click on the **Next >** button.
- Step 6 Under Select a Device, select the **IPMN Diversity Radio Network, Fast (COM1)** modem and click on the **Next >** button.
- Step 7 Under Connection Name, enter **SLIP2IPMN** and click on the **Next >** button.
- Step 8 In the Phone Number to Dial box, enter **5** and click on the **Next >** button.
- Step 9 Under Internet Account Information, click on the **Next >** button.
- Step 10 At the Complete the New Connection Wizard window, click on **'Add a short cut to my desktop'** and click on the **Finish** button and the connection is created as well as a shortcut icon to the computer's desktop.
- Step 11 Right click on the newly created **SLIP2IPMN** network connection and select **Properties**.
- Step 12 Click on the **Advanced** tab.
- Step 13 Under Internet Connection Sharing, make sure to deselect the option **'Allow other network users to connect through this computer's Internet connection'** and click on the **OK** button.

NOTE: If Step 13 is not performed for Windows XP, the connection will not work.

MDC-TO-RADIO CONNECTION AND SETTINGS

Step 1 Connect the serial cable (DB9F – DB9M) from the MDC to the radio.



Step 2 Power up the MDC and the radio.

Step 3 Run the dial-up connection on the MDC by double clicking on the **SLIP2IPMN** shortcut.



Step 4 Create a shortcut for the *IPMessage* Utility by double click on the **My Computer** icon.

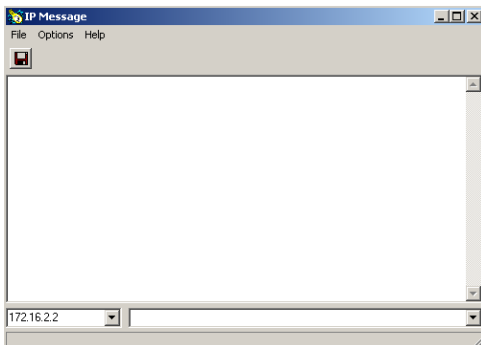
Step 5 Double click on the **C:** drive, **Program Files**, **IPMobileNet**, and on the **IPMsg** folder.

Step 6 Right click on the **IPMsg** icon and click on **Create Shortcut**. Once created, move the shortcut to the MDC's desktop for future use.

Step 7 Run the *IPMessage* Utility by double clicking on the **'Shortcut to IPMsg'** icon.



The *IPMessage* window displays.



Step 8 In the *IPMessage* window in the left field, enter the radio's IP address.

Step 9 In the right field type a **?**.

Step 10 Press **[ENTER]** and the radio configuration displays.

```
[From: 172.16.22.2] Host serial = 115200,N.8.1, timeout=200
[From: 172.16.22.2] Host framing = SLIP no status messages
[From: 172.16.22.2] embedded format flag = multiple
[From: 172.16.22.2] Injection = HiCHN SIDE, 45Mhz
[From: 172.16.22.2] channel spacing = 25000
[From: 172.16.22.2] Channel = 0
[From: 172.16.22.2] TX Power = 0
[From: 172.16.22.2] Car to car TX power = 0
[From: 172.16.22.2] Channel Tx freq Rx freq Inj freq
[From: 172.16.22.2] Frequency=0 , 485.000000, 480.000000, 525.000000
[From: 172.16.22.2] Serial number: undefined
[From: 172.16.22.2] TX quiet time = 5
[From: 172.16.22.2] TX sync time = 12 milliseconds, 0 extra inter-split-frame count
[From: 172.16.22.2] TX tail time = 5
[From: 172.16.22.2] Radio data rate = 19200
[From: 172.16.22.2] Max data tx time = 60 seconds
[From: 172.16.22.2] PLL load to bkkey delay = 2 milliseconds
[From: 172.16.22.2] Carrier detect delay time = 3 milliseconds
[From: 172.16.22.2] Polarity = TX-, RX-
[From: 172.16.22.2] allow crc errors = 0
[From: 172.16.22.2] Duplicate time = 10 milliseconds
[From: 172.16.22.2] RSSI step = 12 (=234mV)
[From: 172.16.22.2] noise = -65dBm, -86dBm
[From: 172.16.22.2] Fixed TX Delay = 0 milliseconds
[From: 172.16.22.2] Scale TX Delay = 0 microseconds
[From: 172.16.22.2] IP Address = 172.16.22.2 (VIU = 172.16.21.81, PC = 173.16.23.1)
[From: 172.16.22.2] netmask = 255.255.255.0
[From: 172.16.22.2] num timeslots = 16
[From: 172.16.22.2] timeslot period = 992ms
[From: 172.16.22.2] timeslots per voice packet = 4
[From: 172.16.22.2] 06Feb2036 22:42:41 (PST), calibration=563
[From: 172.16.22.2] diversity speed = 5
[From: 172.16.22.2] receiver = auto
[From: 172.16.22.2] bri = 0, -replace mdt address, -filter out other addresses, -filter out keep alive
```

To change the radio's IP address, perform the following steps:

Step 1 In the right field type **UNLOCK=password** (enter the appropriate password) and press **[ENTER]**. This unlocks the radio Firmware to enable the IP address change.

Step 2 In the right field type **IPADDRESS=NNN.NNN.NNN.NNN** (replacing the N's with the new IP address) and press **[ENTER]**.

Step 3 In the right field type a **?** or **IPADDRESS** and press **[ENTER]**.

Step 4 Verify that the radio's IP Addresses is correct.

Step 5 Close the **IPMessage** window.

DHCP setting for IPMN Mobile Radio without Ethernet port

For Windows 2000 / XP:

Step 1: Copy file **autoipl.txt** to PC desktop.

Step 2: Click on **Start, Setting, Network and Dial-up Connections**.

Step 3: Right click on **SLIP2IPMN**.

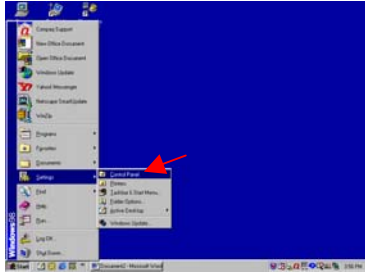
Step 4: Select **Create a copy...** to create a copy of **SLIP2IPMN**.

Step 5: Select **Security, Browse**, and **Desktop**.

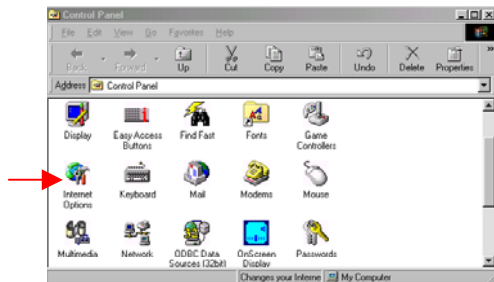
Step 6: Select **autoipl.txt** and click on the **OK** button to close.

To access Advanced Dial-Up options, the *Do not allow Internet programs to use this connection* selection must be deselected. To deselected, perform the following steps:

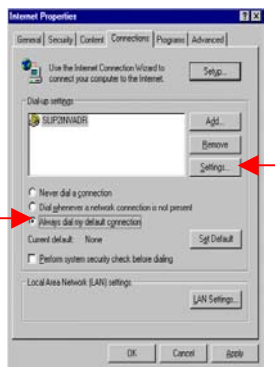
Step 1 Click on the **Start** button, select **Settings, Control Panel**.



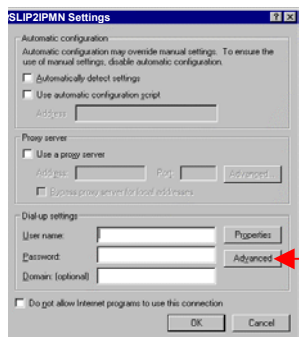
Step 2 Double click on the **Internet Option** icon.



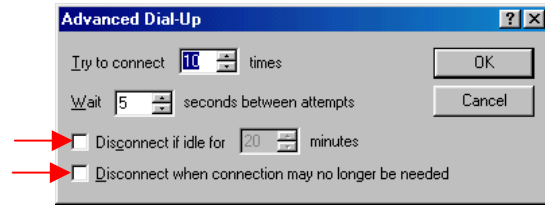
Step 3 On the Internet Properties window, click on the **Connections** tab. Select **Always dial my default connection**. Highlight **SLIP2IPMN**, and click on the **Settings...** button.



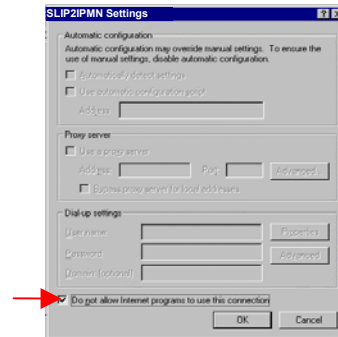
Step 4 Deselect the Do not allow Internet programs to use this connection. Click on the **Advanced...** button.



Step 5 Ensure the Disconnect features are not selected.



Step 6 Click on the **OK** button. On the Setting window, ensure that the **Do not allow Internet programs to use this connection** is selected.



Click on **OK** twice and close the window by clicking on the **X** in the upper right-hand corner of the window

As previously stated, the *Use default gateway on remote network* selection must be removed. Perform the following steps to deselect (refer to Page 15, Step 17 to see the appropriate screens).

Step 1 At MDC desktop, click on the **Start** button, select **Programs, Accessories, Communication, and Dial-up Networking**.

For Windows 2000, select Network and Dial-up Connections.

For Windows XP, select Start, All Programs, Communication, and Network Connections.

Step 2 Right click on the **SLIP2IPMN** Dial-up Network connection and select **Properties**.

Step 3 Click on the **Server Types** tab. *For Windows 2000 & XP, select the Networking tab.*

Step 4 Click on the **TCP/IP Settings...** button. *For Windows 2000 & XP, click on Internet Protocol (TCP/IP), Properties, and on the Advanced button.*

Step 5 Deselect **Use default gateway on remote network**.

Step 6 Click on the **OK** button. Click on **OK** again. *For Windows 2000 & XP, click on OK one more time.*

Step 7 Close the Dial-up Network window.

Mobile Radio-to-VIU-to-Mobile Data Computer Illustration



MOBILE RADIO-TO-VIU-TO-MDC CONNECTION

To connect the serial cable (see Fig. 1 below), perform the following steps:

- Step 1 Attach the 20-foot serial cable male connector (DB9M) to the radio.
- Step 2 Route the female connector (DB9F) to the operator's compartment of the vehicle and connect to the serial communication port located on the rear of the VIU near the microphone hang up clip.
- Step 3 Attach the 10-foot serial cable male connector (DB9M) to the other serial communication port located on the rear of the VIU.
- Step 4 Route the female connector (DB9F) of the 10-foot serial cable to the serial communication port located on the rear of the MDC.



Figure 1

To connect the VIU power supply (see Fig. 2 below), perform the following steps:

- Step 1 Route the VIU's power supply cable from the operator's compartment to the trunk compartment.
- Step 2 Connect the black wire to the negative (-) terminal of the EMI Noise Filter.
- Step 3 Attach the red wire of the VIU's power supply cable in-line fuse to the radio connection on the EMI Noise Filter.

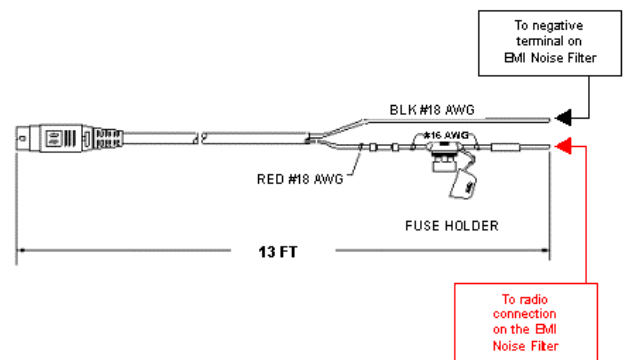


Figure 2

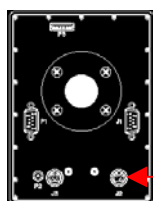
VIU IP ADDRESS PROGRAMMING

There are two (2) methods of programming the IP Address on the VIU. The first is through the program mode on the VIU and the second is through *IPMessage* Utility. **NOTE:** The factory default VIU IP Address is 172.16.21.80. The factory default voice server is 172.16.23.200.

VIU IP Address Programming via the VIU

To change the VIU IP Address via the VIU program mode, perform the following steps:

- Step 1 Enter the program mode by disconnecting the power for a minimum of ten seconds then reconnecting (if facing the rear of the VIU the power connector is on the back lower right-hand side of the VIU).



Rear view of VIU

power connector

The indicator lights on the front of the VIU will blink and the speaker will beep to confirm a successful power up. *Wait until the VIU display goes blank to continue.*

- Step 2 Quickly press **MENU, DOWN** to **Profile** and press **Enter**. Press **DOWN** to **IP Address** and press **Enter** and the current IP Address displays.

- Step 3 **Immediately** enter the new address:

NNN*NNN*NNN*NNN (replacing the N's with the appropriate address).

NOTE: NNN is between 0 and 255. Delete leading zeros. Use the star (*) key to represent periods in the address.



Press the **#INDIV** key to store the information.

Press **Esc/Cir** until you have exited the menu.

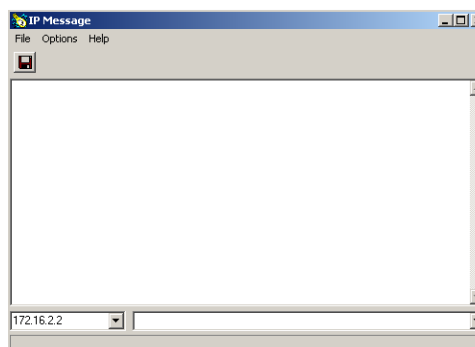
- Step 4 To validate that the IP address was entered correctly, repeat Steps 1 and 2 above.

VIU IP Address Programming via IPMsg

To change via the *IPMessage* Utility, perform the following steps:

- Step 1 Disconnect VIU power for ten seconds, then reconnect.
- Step 2 To view the IP Address, follow Steps 1 and 2 from the 'VIU IP Address Programming via the VIU'.
- Step 3 Double click the **SLIP2IPMN** icon to start the SLIP2IPMN dial-up network connection. 
- Step 4 Double click on the **Shortcut to IPMsg** to start the *IPMessage* Utility (If a shortcut is not available, locate via C:\Program Files\IPMobileNet\IPMsg.) 

The *IPMessage* window displays.



- Step 5 In the left field, enter the IP address of the VIU and press **[ENTER]**.
- Step 6 In the right field type a **?** and press **[ENTER]**. This displays the VIU Configuration.
- Step 7 Type **UNLOCK=password** (entering the appropriate password) and press **[ENTER]**
- Step 8 Type **IPADDRESS=NNN.NNN.NNN.NNN** (replacing the N's with the appropriate IP Address) and press **[ENTER]**
- Step 9 In the left field, enter the VIU's new IP Address.
- Step 10 In the right type a **?** or **IPADDRESS** and press **[ENTER]**.
- Step 11 Verify that the IP Address is correct.
- Step 12 Close the *IPMessage* window.