1 Introduction

The Cisco DVB CAR100 is a cable access router that connects a cable TV (CATV) network either to one computer or to an Ethernet hub with one or more PCs connected. The Cisco DVB CAR100 enables two-way data communication at high bit-rates.

The Cisco DVB CAR100-PC version can connect a single computer to the CATV network. The Cisco DVB CAR100-LAN version can connect a maximum of 20 computers to the CATV network, using an Ethernet hub (not included in the delivery).

Reference Material

Before you install the Cisco DVB CAR100, make sure that you have a copy of the *Cisco DVB CAR100 Cable Access Router Hardware Installation Guide* (Cisco document number 78-10685).

If you do not have a printed copy of this guide, you can download a copy from Cisco Connection Online on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

System Requirements

This section identifies the hardware requirements necessary to install and operate the Cisco DVB CAR100.

Cisco DVB CAR100-PC Version

- A computer equipped with an Ethernet network adapter

- A crossover Ethernet cable

- Coaxial cable

- A power supply unit (included in the delivery)

Cisco DVB CAR100-LAN Version

• A maximum of 20 computers equipped with Ethernet network adapters

• An Ethernet hub

• A straight-through Ethernet cable

• Coaxial cable

• A power supply unit (included in the delivery)

Getting Help

Please contact the vendor who supplied your equipment or the cable service provider for technical support information.

2 Installing the Cisco DVB CAR100

This section provides basic information necessary to install the Cisco DVB CAR100. Refer to the *Cisco DVB CAR100 Cable Access Router Hardware Installation Guide* for detailed installation instructions and illustrations.

The following figure shows the locations for connecting all cables to the rear panel connectors of the Cisco DVB CAR100.
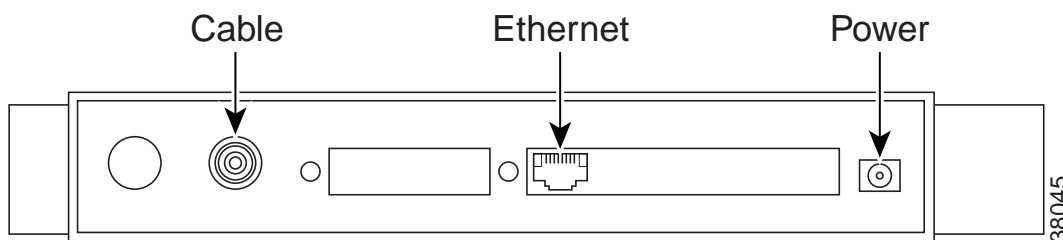
Warning   Read the installation instructions before you connect the system to its power source. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.

When the power supply is connected to the Cisco DVB CAR100, electrical current flows through the CATV coaxial cable. To avoid electrical shocks, always connect the CATV coaxial cable to the Cisco DVB CAR100 **before** connecting the power supply, and disconnect the power supply before removing the CATV coaxial cable.

Step 1   Connect the Cisco DVB CAR100 to the CATV network:
Connect the coaxial cable to the CATV wall outlet and to the socket labelled **Cable** on the rear of the Cisco DVB CAR100.

Step 2   Connect the Cisco DVB CAR100 to the computer or hub:
If you have the Cisco DVB CAR100-PC, use a **crossover** Ethernet cable to connect the socket labelled **Ethernet** to the computer's Ethernet network adapter. If you have the Cisco DVB CAR100-LAN, use a **straight-through** Ethernet cable to connect the socket labelled **Ethernet** to the hub's Ethernet network adapter.

Step 3   Cisco DVB CAR100-LAN only:
Connect the computers to the Ethernet hub according to the hub manufacturer's instructions.

Step 4   Connect the power supply unit to the socket labelled **Power** on the back of the Cisco DVB CAR100, then connect the power supply unit to the electrical wall outlet.

Note Always use the power supply unit supplied with the Cisco DVB CAR100.

3 Computer Configuration

Having completed the installation procedures, you have now successfully installed your Cisco DVB CAR100. It comes preconfigured for full end-user operation. However, you will need to configure the connected computers to communicate with the CATV network.

Note Consult the documentation provided by your CATV Service Provider. Typically you will be advised to use the Automatic Network Configuration described below. Use the Manual Network Configuration only if instructed to do so by your CATV service provider.

Automatic Network Configuration

Automatic Network Configuration for Windows 95/98

Step 1   Choose **Start>Settings>Control Panel>Network**.

Step 2   Select the **Configuration** tab.

Step 3   Select the **TCP/IP [your Ethernet adapter]** entry, **Properties**, and then the **IP Address** tab.

Step 4   Click **Obtain an IP address from a DHCP Server**.

Step 5   Click **OK** and reboot the PC if neccessary.

If you have the Cisco DVB CAR100-LAN version, repeat Steps 1 to 5 for each connected PC.

Automatic Network Configuration for Windows NT

Step 1   Choose **Start>Settings>Control Panel>Network>Protocols**.

Step 2   Click the **TCP/IP Protocols** entry in the list, then **Properties**, and select the **IP Address** tab.

Step 3   Click **Obtain an IP address from a DHCP Server**.

Step 4   Click **Apply**.

Step 5   Click **OK** and reboot the PC if neccessary.

If you have the Cisco DVB CAR100-LAN version, repeat Steps 1 to 5 for each connected PC.

Manual Network Configuration

Note Use the Manual Network Configuration below only if instructed to do so by your CATV Service Provider.

Note **All Operating Systems:** Use the TCP/IP settings provided by your CATV service provider; or if no other data is provided, use the values from the TCP/IP Settings Table below. (Do **not** use the following values if your Cisco DVB CAR100 is configured for MAC bridging. In such instances, your CATV service provider should supply you with the appropriate values.) Refer to your operating system documentation for information regarding TCP/IP configuration procedures.

TCP/IP Settings Table		IP Address
Cisco DVB CAR100-PC	Single PC	192.168.128.10
Cisco DVB CAR100-LAN	PC 1	192.168.128.10
	PC 2	192.168.128.11
	PC 3	192.168.128.12
	PC 4 to PC 20	192.168.128.13 to 29
All versions	Subnet Mask	Default Gateway
	255.255.255.0	192.168.128.2

Manual TCP/IP Configuration for Windows 95/98

Step 1 Choose **Start**>**Settings**>**Control Panel**>**Network**.

Step 2 Select the **Configuration** tab.

Step 3 Select the **TCP/IP [your Ethernet adapter]** entry, **Properties**, then the **IP Address** tab.

Step 4 Click **Specify an IP address** and enter values for IP address and subnet mask from the TCP/IP Settings Table above to configure the TCP/IP settings of your PC.

Step 5 Click the **Gateway** tab and enter values for the default gateway from the TCP/IP Settings Table.

Step 6 Select **DNS Configuration**, **Enable DNS** and enter the DNS Server information supplied by your CATV service provider.

Step 7 Click **OK** and reboot the PC if neccessary.

If you have the Cisco DVB CAR100-LAN version, repeat steps 1 to 7 for each connected PC.

Manual TCP/IP Configuration for Windows NT

Note Use the Manual Network Configuration described below only if instructed to do so by your CATV service provider.

Step 1 Choose **Start>Settings>Control Panel>Network>Protocols**.

Step 2 Click the **TCP/IP Protocols** entry in the list, then **Properties**, and select the **IP Address** tab.

Step 3 Click **Specify an IP Address**. If no other configuration data is provided by your cable operator, enter the values from the TCP/IP Settings Table above to configure the TCP/IP settings of your PC.

Step 4 Click **Apply**.

Step 5 Select the **DNS** tab and enter the DNS Server information supplied by your cable service provider.

Step 6 Click **OK** and reboot the PC if neccessary.

Note If you have the Cisco DVB CAR100-LAN version, repeat Steps 1 to 6 for each connected PC.

The PCs are now ready to access the CATV network using the Cisco DVB CAR100.

Troubleshooting Tips

The Cisco DVB CAR100 can take up to 20 minutes to sign on the very first time and, in extreme circumstances, even longer. In such instances, contact your cable service provider for advice.

If the power LED on the front of the Cisco DVB CAR100 does not turn green after the initialization procedure, the modem is not functioning correctly.

If the Cisco DVB CAR100 is powered off, it should remain off for at least 10 minutes before being restarted. If the unit is powered on within 10 minutes, it is possible that it will fail to reestablish communication with the service provider's headend unit. If this occurs, power the unit off again, and leave it off for at least 10 minutes. Then power on the Cisco DVB CAR100 again, and communication with the service provider's headend unit should be reestablished as normal.

Safety

Ensure free air flow around the Cisco DVB CAR100 and power supply unit at all times to prevent overheating.

4 Software Updates and Upgrades

Software Updates

Software updates for the Cisco DVB CAR100 are handled automatically by the cable service provider by means of the CATV network. This requires no user intervention.

Note Cisco recommends leaving the Cisco DVB CAR100 switched on at all times so that automatic software updates can be completed successfully.

Upgrading the Cisco DVB CAR100-PC to the Cisco DVB CAR100-LAN

To upgrade the Cisco DVB CAR100 from the PC to the LAN version, contact your cable service provider.

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