

Digital RoamAbout 915/2400 DS/ISA Network Adapter

Quick Start

Part Number: EK-DEIWA-RC. D01

April 1996

Revision/Update Information:

This manual has been revised to include Windows 95 and Windows NT.

Reader's Comments:

Your comments and suggestions help us to improve the quality of our documentation. You can respond to the documentation manager at:

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FCC NOTICE – Class B Computing Device

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

CE NOTICE – Class A Computing Device:

Warning!

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

Achtung!

Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten, in welchen Fällen der Benutzer für entsprechende Gegenmaßnahmen verantwortlich ist.

Attention!

Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilisateur de prendre les mesures spécifiques appropriées.

Introduction

This document provides the step-by-step procedure to install the Digital RoamAbout 915/2400 DS/ISA Network Adapter.

This manual includes the following tasks:

- Installing the network adapter
- Configuring a network adapter
- Installing driver software on Windows 95 and Windows NT
- Running the utilities

For complete installation and configuration instructions, refer to the *Digital RoamAbout 915/2400 DS/PC Card and ISA Network Adapter Installation and Configuration* manual (hereafter referred to as the Network Adapter manual).

Online Services

To locate product-specific information, refer to the following online services:

World Wide Web

<http://www.networks.digital.com/npb/html/wireless.html>

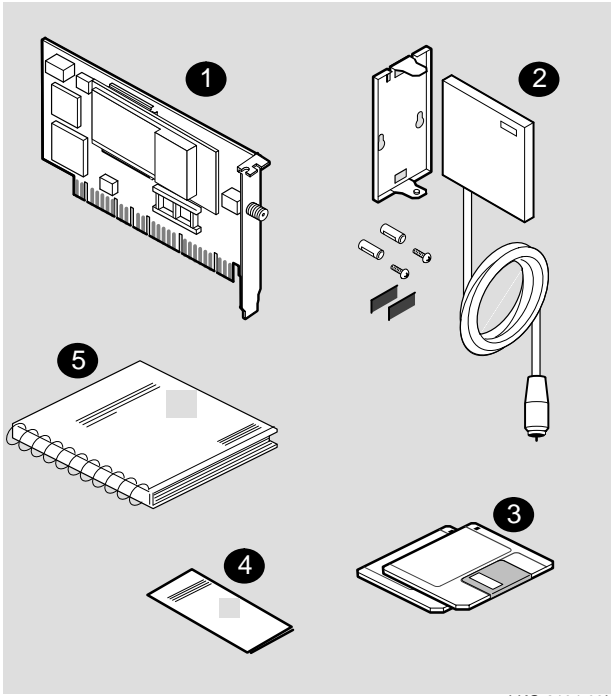
Bulletin Board Service

Set your modem to 8 bits, no parity, 1 stop bit. Dial: 508-486-5777 (within the U.S.), or (access code)-1-508-486-5777 (from outside the U.S.).

Kit Contents

Figure 1 shows the network adapter kit contents.

Figure 1 Kit Contents



LKG-8194-931

Item	Description
1	ISA network adapter
2	Antenna and mounting bracket
3	Digital RoamAbout software diskettes
4	<i>Digital RoamAbout 915/2400 DS/ISA Quick Start</i>
5	Network Adapter manual

Distribution Diskette Contents

Table 1 lists the files contained on the Digital RoamAbout software distribution diskettes.

Table 1 Digital RoamAbout Software

DOS and Windows 3.X Diskette	Windows 95, Windows NT, and Utilities Diskette
README.TXT	README.TXT
WVLAN05.COM	WVLAN22.SYS
NET.CFG	WVLAN22.DLL
WVLAN05.INS	WVLAN22.HLP
OEMSETUP.INF	WVLAN22.INF
OEMSETUP.WFW	OEMSETUP.INF
OEMSETUP.IBM	
WVLAN09.DOS	Utilities files:
WVLAN09.NIF	SETCONF.EXE
WVLAN10.OS2	INSTCONF.EXE
WVLAN10.NIF	CONFIG.SYS
PROTOCOL.INI	AUTOEXEC.BAT
SETCONF.EXE	PTPDIAG.EXE
INSTCONF.EXE	WFREQSEL.EXE
CPY2HDSK.BAT	SETIRQ.BAT
UTL2BOOT.BAT	IRQ.EXE
CONFIG.SYS	
AUTOEXEC.BAT	
PTPDIAG.EXE	
VLMUP4.EXE	
WFREQSEL.EXE	
SETIRQ.BAT	
IRQ.EXE	

Task 1 – Installing the Network Adapter

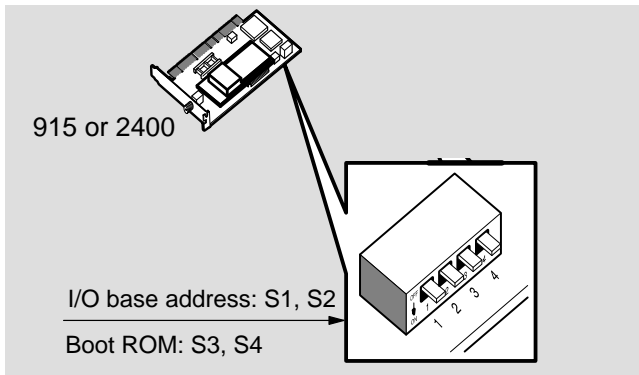
Caution

Before installing the network adapter into a PC, be sure to turn off the power to the PC. Refer to the safety advisory in the Network Adapter manual.

To install the network adapter:

1. Verify that the I/O base address switches S1 and S2, shown in Figure 2, are set to the appropriate I/O addresses listed in Table 2. Switches S3 and S4 are used with the optional Boot ROM address and are preset to off.
2. For Windows 3.X and DOS, install the network adapter in an ISA slot in your PC and connect the antenna.

Figure 2 Address Switch Location



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Table 2 I/O Address Switch Settings

I/O Address	S1	S2
0300H (default)	Off	Off
0390H	Off	On
03C0H*	On	Off
03E0H	On	On

* Your video adapter may be using this address.

Task 2 – Configuring a Network Adapter

This task is for Windows 3.X and DOS only. Proceed to Task 3 if you have Windows 95 or Windows NT systems.

To configure your ISA network adapter:

Step	Action																
1	<p>Install the Digital RoamAbout software.</p> <ol style="list-style-type: none">Choose a directory name on your hard disk to store the files. For example: c:\roamabtPlace the RoamAbout diskette into drive A:.Make drive A: the current drive and run the batch file CPY2HDSK.BAT to install files to the ROAMABT directory. For example: A:\>copy2hdsk c:\roamabt																
2	<p>Install the network operating system (NOS). See the vendor-supplied network documentation for detailed information, or your Network Adapter manual for instructions. To install your network driver, select the NOS and run the appropriate installation program. Examples include:</p> <table><thead><tr><th>NOS</th><th>Run this program</th></tr></thead><tbody><tr><td>– PATHWORKS V5</td><td>pwsetup or a:\setup</td></tr><tr><td>– PATHWORKS V4</td><td>netsetup</td></tr><tr><td>– Windows for Workgroups</td><td>Select Network icon from Control Panel</td></tr><tr><td>– NetWare Lite</td><td>a:install from Program diskette</td></tr><tr><td>– Personal NetWare</td><td>a:install from diskette 1</td></tr><tr><td>– NetWare Version 4</td><td>a:install from WSDOS diskette</td></tr><tr><td>– NetWare Version 3</td><td>DOS/ODI support files from WSGEN diskette</td></tr></tbody></table>	NOS	Run this program	– PATHWORKS V5	pwsetup or a:\setup	– PATHWORKS V4	netsetup	– Windows for Workgroups	Select Network icon from Control Panel	– NetWare Lite	a:install from Program diskette	– Personal NetWare	a:install from diskette 1	– NetWare Version 4	a:install from WSDOS diskette	– NetWare Version 3	DOS/ODI support files from WSGEN diskette
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– NetWare Version 3	DOS/ODI support files from WSGEN diskette																
3	<p>Set wireless parameters in the PROTOCOL.INI file (for NDIS) or NET.CFG (for ODI).</p> <p>Roaming/Autoconnect environment Domain ID = RoamAbout AP value Beacon Key = RoamAbout AP value NWID = any value from 0100 – FFFF</p> <p>Nonroaming environment NWID = RoamAbout AP or other client value Domain ID = 0 Beacon key = not used</p>																

Task 3 – Installing Driver Software on Windows 95 and Windows NT

Installing Drivers on Windows 95

Installing an ISA network adapter on a Windows 95 operating system requires that you check the interrupt request vector (IRQ) and install the RoamAbout NDIS3 driver software.

If you have a previous version of an NDIS3 driver, you must remove it before installing the NDIS3 driver supplied with your network adapter. To remove NDIS driver software, refer to *Removing NDIS Drivers from Windows 95* on page 9.

These instructions assume that Windows 95 software is loaded and operating properly, and that your ISA network adapter is not installed.

Checking the Interrupt Request Vector (IRQ)

The ISA network adapter is factory configured for an interrupt request vector (IRQ) of 10. Before installing the ISA network adapter, you must determine if IRQ 10 is available. To determine which IRQs are available to use:

Step	Action
1	With the right mouse button, Select the <i>My Computer</i> icon from the Windows 95 desktop.
2	Select <i>Properties</i> , and then select <i>Device Manager</i> tab.
3	Double-click on the <i>Computer</i> icon in the display window.
4	In the <i>Computer Properties</i> window: a. Select the <i>View Resources</i> tab. b. Click on <i>Interrupt request [IRQ]</i> to view the IRQ settings. c. If IRQ 10 is not allocated, click on the <i>OK</i> button to proceed to the next section.
5	If IRQ 10 is allocated, select an available IRQ (03, 04, 05, 07, 10, 11, 12 and 15) and write it down. Appendix C of the <i>Network Adapter</i> manual provides instructions to change the default IRQ.
6	Proceed to the next section.

Installing NDIS3 Drivers on Windows 95

To install the NDIS3 software driver on Windows 95, you must inform the operating system that a network adapter has been installed. To install the NDIS3 driver software:

Step	Action
1	Ensure that you have the Windows 95 distribution CD/diskettes available.
2	From the status bar, click on the Start button.
3	Move the cursor to Settings and then click on Control Panel.
4	Double click on the Add New Hardware icon.
5	Click on the Next> button.
6	Select No when the prompt asks Do you want Windows to search for new hardware?, and then click on the Next> button.
7	From the list of hardware in the Select Device window, select Network Adapters, and then click on the Next> button.

The Windows 95 Select Device window displays a listing of manufacturers' names and their associated network adapters, and a list of detected network drivers. To install the RoamAbout NDIS3 driver:

Step	Action
1	From the Select Device window, click on the <code>Have Disk...</code> button.
2	Insert the RoamAbout Windows 95, Windows NT, Utilities diskette into drive A, and click on the <code>OK</code> button. The Select Device window appears again displaying a list of RoamAbout NDIS3 drivers.
3	Select the Digital RoamAbout DS/ISA NDIS 3.1 Miniport Driver and click on the <code>OK</code> button.
4	Record the I/O base address settings that the Windows 95 Add New Hardware Wizard selected for you. You will be asked to set your network adapter I/O base address switches in step 9.
5	Click on the <code>Next ></code> button. Windows 95 starts copying files from the Windows 95 installation diskette and the RoamAbout diskette.
6	If you do not have a network installed yet, Windows 95 prompts you to identify a computer and a computer workgroup name. Click on the <code>OK</code> button, and then specify computer and workgroup names. Once you have entered the names, press [Enter]. The Advanced tab window is displayed.
7	In the Advanced tab window, set the Beacon Key and Domain ID values to match the values assigned to the Digital RoamAbout Access Point.
8	Click on the <code>Finish</code> button to complete the installation. Windows 95 prompts you to shut down your computer.
9	Shut down the computer and set your network adapter I/O base address switches as described in Task 1.
10	Install the ISA network adapter now.

Removing NDIS Drivers from Windows 95

Step	Action
1	Record all network parameters, including Domain ID, Beacon Key, Encryption Key, Network Protocols (IP, NetBEUI, IPX), IP address, and any other IP-related information.
2	Double click on the My Computer icon.
3	Double click on the Control Panel icon.
4	Double click on the System icon.
5	Click on the Device Manager tab.
6	Click on the Digital Roam>About DS/ISA NDIS3 Miniport Driver.
7	Click on the Remove button and then click on OK.
8	Delete the old WVLAN22.SYS and WVLAN22.INF files by using Windows 95 Explorer or at the DOS level. The location of the files are: \windows\system\wvlan22.sys and \windows\inf\wvlan22.inf
9	Reboot the PC and then install your new driver.

Installing Drivers on Windows NT

Installing a network adapter on a Windows NT 3.51 operating system requires that you check the interrupt request vector (IRQ) and port status, and install the RoamAbout NDIS3 driver software.

These instructions assume that Windows NT 3.51 software is loaded and operating properly, and that your network adapter is not installed.

Checking the Interrupt Request Vector (IRQ)

The network adapter is factory configured for an interrupt request vector (IRQ) of 10. Before installing the network adapter, you must determine if IRQ 10 is available. To determine which IRQs are available to use:

Step	Action
1	From the Program Manager window, double click on the Administrative Tools program group.
2	Double-click on the Windows NT Diagnostics icon, then click on IRQ/Port Status....
3	Scroll through the Interrupts field to check if IRQ (Vector) 10 is allocated.
4	If IRQ 10 is allocated, select an available IRQ (03, 04, 05, 07, 10, 11, 12, and 15) and write it down. Appendix C of the Network Adapter manual provides instructions to change the default IRQ.
5	Install the network adapter. Once you install the network adapter, complete the driver installation.

Installing NDIS3 Drivers on Windows NT

To install the NDIS3 software driver on Windows NT, you must inform the operating system that a network adapter has been installed. To install the NDIS3 driver software:

Step	Action
1	From the Program Manager window, double click on the <code>Main</code> program group.
2	Double click on the <code>Control Panel</code> icon, and then double click on the <code>Network</code> icon.
3	Click on the <code>Add Adapter . . .</code> button.
4	In the Add Adapter window, set the <code>Network ID</code> , <code>Beacon Key</code> , <code>Domain ID</code> , and so forth, values to match the values assigned to the Access Point.
5	Reboot the PC for these new parameters to take effect.

Upgrading NDIS3 Drivers from Windows NT

To upgrade from an earlier version of the Windows NT driver:

Step	Action
1	Record all network parameters, including Domain ID, Beacon Key, Encryption Key, Network Protocols (IP, NetBEUI, IPX), IP address, and any other IP-related information.
2	From the Program Manager window, double click on the <code>Main</code> program group.
3	Double click on the <code>Control Panel</code> icon.
4	Double click on the <code>Network</code> icon.
5	On the Network Settings window from the Installed Network Software window, select the RoamAbout Adapter Driver.
6	Click on the <code>Update</code> button.
7	Insert the RoamAbout Windows 95, Windows NT, Utilities diskette when requested.
8	Update the RoamAbout parameters.

If the above procedure does not work correctly, click on `Remove` and start the installation again. You should reboot the PC between removing and installing.

Task 4 – Running the Utilities

There are two utilities you can run to verify communications. These utilities are:

- Point-to-Point Diagnostic
- Frequency Select

Note

Before running either utility, the network driver must be disabled. The following steps describe how to boot from the RoamAbout Windows 95, Windows NT, Utilities diskette.

To boot from the RoamAbout Windows 95, Windows NT, Utilities diskette:

Step	Action
1	Put the RoamAbout Windows 95, Windows NT, Utilities diskette into drive A:.
2	From a DOS or Windows 95 system, change the diskette to a boot diskette by typing: <code>sys A:</code> , then press [Return].
3	Reboot the PC using the boot diskette..
4	Type: [ptpdiag] or [freqsel].

Once you press [Return], a menu screen is displayed.

Point-to-Point Diagnostic Utility

The Point-to-Point Diagnostic utility allows you to verify the communications path between a station and an Access Point (AP), or between two stations. The Point-to-Point Diagnostic utility helps to determine if:

- Network adapter functions correctly to allow exchange of messages
- Radio module positioning is optimal
- Stations are within operating range of each other

You can also use the utility to get information about local radio frequency noise and environmental suitability. You can save measurement data to a diskette file.

The Point-to-Point Diagnostic utility must be run before installing your network operating software.

Frequency Select Utility

The Frequency Select utility can be used with any Digital RoamAbout 2400 DS network adapter. The Digital RoamAbout 2400 DS/ISA network adapter is factory preset to a default frequency of 2.422 GHz.

Note

The Frequency Select utility is not applicable to any Digital RoamAbout 915 DS network adapter.

If the frequency setting in your Digital RoamAbout Access Point is different than this default and you want to change the setting in your network adapter, you must run the Frequency Select utility. Refer to Chapter 8 of the Network Adapter manual for further instructions to run this utility.

Follow the instructions on the screen to configure your device.

Command Line Parameter

You can use the parameter option **-m** on the MS-DOS command line to select a Monochrome Display mode. Try this parameter if you have difficulty viewing the display in normal color mode. For example, type:

```
wfreqsel -m
```