User Manual

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

Note: 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. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna, (2) Increase the separation between the equipment and receiver, (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, (4) Consult the dealer or an experienced radio/TV technician for help.

Federal Communications Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

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Introduction

The Wireless PC card helps you create a wireless network for sharing your broadband cable or DLS internet access among multiple PCs in and around your home of office. It is designed for notebook computers running Microsoft Windows 98, 2000, NT, Millennium and XP. It is 16-bit PCMCIA and 32-bit CardBus compatible and works in any available PCMCIA or CardBus slot. Its auto-sensing capability allows packet transfer in 11Mbps for maximum throughput, or speed reduction to the lower 1Mbps speed for distance or working in a noisy environment.

Features

- 11 Mbps High-Speed Transfer Rate
- Interoperable with IEEE 802.11b(DSSS) 2.4GHz-compliant Equipment
- Plug-and Play Operation Provides Easy Setup
- Utilizes Intersil HFA3841/HFA3842 chip sets
- Advanced Power Management Features Conserve Valuable Notebook PC Battery Life
- Direct Sequence Spread Spectrum Compatible to Prevent Lost Connections
- Rugged Metal Design with Integrated Antenna
- Wired Equivalent Privacy (WEP) 40-bit data encryption Driver Supports Windows 98, Millennium, NT v.4, 2000 and XP

Connect the Network PC Card to Your Notebook PC

Hardware Installation

- Locate an available Type II PCMCIA slot on your notebook computer.
- With the PCMCIA adapter's 68-pin connector facing the PCMCIA slot and the "Network PC Card" label facing up, slide the PCMCIA adapter completely into the PCMCIA slot.
- Insert the driver CD into your CD drive.
- The Hardware Installation is complete.

Driver Installation

Install Driver Under Windows XP

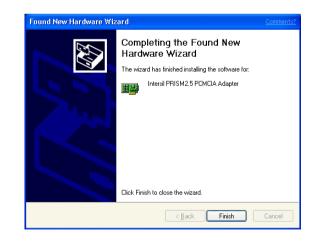
1. Connect the Wireless PC card into your Notebook PC. Windows XP will automatically recognize a new Intersil PRISM_2_5_PCMCIA_ADAPTER. Select Install the software automatically [Recommended] and click the Next button to proceed.



2. Windows will notify you that it has not passed Windows Logo testing to verify its compatibility with Whistler. Click the **Continue Anyway** button to continue.



3. Windows has now completed installing the network. Click the **Finish** button to continue.



4. Click right on **My computer** and select **properties**. Select **Device Manager** and click on the **Network adapters**. You will find the **Intersil PRISM2.5 PCMCIA Adapter** if it is installed successfully. The PC card adapter driver installation is finished.



Install Driver Under Windows 98

 Connect the Wireless PC card into your Notebook PC. Windows 98 will automatically recognize a new Intersil-PRISM 2_5 PCMCIA ADAPTER. Click the Next button to proceed.



2. Make sure Search for the best driver for your device is selected and click the Next button.



Wireless PC Card

3. Make sure the **Specify a location** is selected and click the **Browse** button. At this point, Windows will ask you to browse for the folder. Simply select the folder in which the driver is located and click the **OK** button.

CD-ROM drive D_ROM drive Microsoft Windows Update Specity a jocation: E:\WIN98 Browse	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Specify a Jocation:	CD-ROM drive
	■ Microsoft Windows Update
	🔽 Specify a location:
Biowse	E:\WIN98
	Browse
	< Back Next > Cancel

4. Windows is now ready to install the driver. Click the **Next** button to continue.



5. Windows has now completed installing the network. Click the **Finish** button to continue.

dd New Hardware Wiz	Intersil PRISM2.5 PCMCIA Adapter
	Windows has finished installing the software that your new hardware device requires.
~	
	< Back Finish Cancel

6. After installing the drivers, the **System Setting Change** screen will show you that installation is complete. Click the **Yes** button to finish.

System 9	Settings Change 🛛 🕅
?	To finish setting up your new hardware, you must restart your computer. Do you want to restart your computer now?
	Yes <u>N</u> o

7. Click right on **My computer** and select **properties**. Select **Device Manager** and click on the **Network adapters**. You will find the **Intersil PRISM2.5 PCMCIA Adapter** if it is installed successfully. The PC card adapter driver installation is finished.

ystem P	roperties				?
General	Device Mana	ager Hardwar	e Profiles	Performanc	e
● Vie	ew devices by j	type O	View devid	ces by <u>c</u> onne	ection
	omputer				-
E 🔁	CDROM				
• • •	Disk drives				
Ē - 📮	Display adap				
E-2	Floppy disk				
E C	Hard disk co				
🖻 🗼	🜖 Infrared dev	ices			
E Q	💈 Keyboard				
• • • •	Monitors				
) 🗄 🖓	Mouse				
	Network ada				
	📲 🔐 Intersil F	PRISM2.5 PCM	CIA Adapt	er	
	Cther device	es			
÷ <	PCMCIA soc				
E 2	Ports (COM	& LPT)			
E 🕻	Sound, vide	o and game co	ontrollers		
l 🙃 🗖	n eniteir arts				
		Refresh	Be	move	Print
Pp	operties				
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Pŗ		110110011			

Install Driver Under Windows ME

1. Windows automatically recognizes a new PC Card added. Select **Automatic search for a better driver [Recommended]** and click the **Next** button to proceed.



2. Windows will notify that installing has been completed. Click the **Finish** button to continue.



3. Windows will now ask you to restart your computer. Click the **Yes** button to restart.



4. To verify the driver installation, Move cursor on "My computer" icon and click the right button of the mouse. Select the properties. The System Properties windows shows. Click the Network adapters on the Device Manager folder. Intersil PRISM2.5 PCMCIA Adapter will be found if the driver installation is successful.



Install Driver Under Windows 2000

1. Windows 2000 will automatically recognize the PC Card, once it is connected to the PC, and prompt you to install the necessary driver. Click the **Next** button to proceed.



2. Select **Search for a suitable drive** and click the **Next** button. This will search for the Windows 2000 driver.



3. Select **Specify a location** and click the **Next** button.



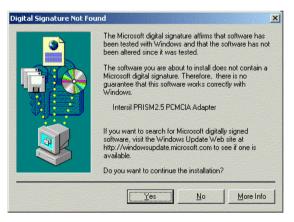
4. In the field, type the folder in which the driver files are located and click the Next button.



5. Windows will now search for the driver. After Windows acknowledges finding the driver, click the Next button.

e following device:
CMCIA_ADAPTER
device. To install the driver Windows found, click Nex
inf

6. The Digital Signature Not Found screen is a notification by Windows 2000. However, this does not mean that there is a problem. Click the Yes button to continue.

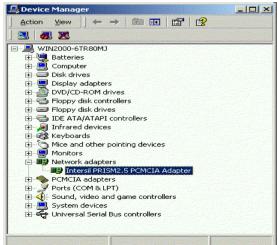


Wireless PC Card

7. Windows will now install the driver files. Click the **Finish** button when completed.



 Click right on My computer and select properties. Select Hardware and select Device Manager and click on the Network adapters. You will find the Intersil PRISM2.5 PCMCIA Adapter if it is installed successfully. The PC card adapter driver installation is finished.



Install Driver Under Windows NT

Windows NT will setup the PC Card differently depending upon whether you've previously installed network hardware or not. Please follow the instructions appropriate for you.

If You Have Never Installed Network Hardware:

- 1. Windows NT is not a Plug-and-Play Operating System and will not automatically identify the Network PC Card. To begin setup, select **Settings** from the **Start** Menu and bring up the **Control Panel**. Then double-click on the **Network** icon.
- 2. Windows will notify you that Networking is not installed. Click the **Yes** button to continue.



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3. Installation will begin and you will reach the screen shown below. You will want to select the box that reads **Wired to the network** since you are adding network hardware. Then, click the **Next** button to continue.



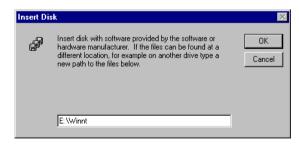
4. The next screen will not show any Network Adapters installed on your system, which signifies that no network hardware has been previously installed. You will want to click the **Select from list** button to continue.

Network Setup Wizard	To have setup start searching for a Network Adapter, click Start Search button. Start Search Network Adapters:
	Select from list

5. A list of adapters will appear on the next screen. You will not want to select one of these, however, as your installation CD has all of the appropriate drivers. Click the **Have Disk** button to continue.

elect Ne	twork Adapter	? ×
▦₩	Click the Network Adapter that matches your hardware click OK. If you have an installation disk for this comp Have Disk.	
<u>N</u> etwork /	Adapter:	
💷 3Con	n 3C508 ISA 16-bit Ethernet Adapter	_
💵 3Con	n Etherlink II Adapter (also II/16 and II/16 TP)	
💵 3Con	n Etherlink III ISA/PCMCIA Adapter	
💷 3Con	n EtherLink III PCI Bus-Master Adapter (3C590)	
💵 3Con	n Etherlink16/EtherLink16 TP Adapter	
IIII DOAR	s East Elbort int, DCI 10/1000ACE T Adapter (20696)	<u> </u>
		ave Disk
	OK	Cancel

6. On the Insert Disk screen, type "E:\Winnt" in the field provided. Then, click the **OK** button to continue.



Wireless PC Card

7. The Select OEM Option screen will show the Intersil PRISM2.5 PCMCIA Adapter. Click the OK button to continue.

Select OEM Option	×
Choose a software supported by this hardware manufacturer's disk.	
Intersil PRISM2.5 PCMCIA Adapter	
OK Cancel <u>H</u> elp	

8. On the next screen, make sure there is a check mark in the box beside **Intersil PRISM2.5 PCMCIA Adapter**, and click the **Next** button to continue.



9. The next screen will show a list of network protocols. While the **TCP/IP Protocol** is already selected by default, you should check with your network administrator before installing any network protocols. Click the **Next** button to continue.

Network Setup Wizard	
	Select the networking protocols that are used on your network. If you are unsure, contact your system administrator.
	Network Brotocols:
	Select from list

10. On the screen showing Network Services, the selections are automatically made. Simply, click the **Next** button to continue.

Network Setup Wizard	
	Listed below are the services that will be installed by the system. You may add to this list by clicking the Select from list button.
	Network Services:
	Select from list

11. At this point, Windows NT will be ready to start installing Networking Components. Click the **Next** button to continue.

Network Setup Wizard	Windows NT is now ready to install networking components that you selected and others required by the system. This process will allow individual components to install themselves and raise dialogs so that they may install correctly.
	Click Back to make changes to your selections.
	< <u>B</u> ack <u>Next</u> Cancel

12. Windows NT may request further files at this point. Insert the Windows NT CD into your CD-Rom drive. Type the path in the field and click the **Continue** button.

Windows	NT Setup	\times
F	Setup needs to copy some Windows NT files. Setup will look for the files in the location specified below. If you want Setup to look in a different place, type the new location. When the location is correct, click Continue.	Continue Cancel
	E:\\386	

13. If files are still requested, insert your Driver CD into your CD-Rom drive and type the path. Then, click the **Continue** button.

Windows	NT Setup	×
F	Setup needs to copy some Windows NT files. Setup will look for the files in the location specified below. If you want Setup to look in a different place, type the new location. When the location is correct, click Continue.	Continue Cancel
	E:Winnt	

14. You will now reach the screen shown below. This is called the Resources & Properties screen. Setting the fields on this screen is covered at the end of this section under the heading Setting Resource & Properties Fields. Adjust the settings as appropriate. Insert the Windows NT CD into your CD-Rom drive again and then click the Continue button to continue.

Intersil PRISM2.5 P	CMCIA Adapter Setup	_ 🗆 ×
Resources		
I/O Base:	240	
IRQ Level:	9 PCMCIA car	d
- Properties		
Mode:	Infrastructure Station	
SS ID:	Any	
DS Channel:	6 💌 Tx Rate: Fully Au	ito 💌
RTS Threshold:	Disabled 💌	
Fragmentation Threshold	Disabled 💌	
Power Saving:	Disabled 💌	
WEP:	Disabled 💌	
ATIM Window:	Disabled 💌	
Listen Interval:	Maximum 💌	
OK	Cancel	

15. After setting the **Resource and Properties** fields, Windows NT will begin installing the network components you previously selected. You may be asked if you would like to configure the protocols with a DHCP server on your network. If this screen comes up, check with your Network Administrator before clicking the **Yes** or **No** button to continue.



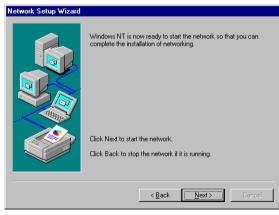
16. Windows will bring you to the **Microsoft TCP/IP Properties** screen. Setting the fields on this screen and then click the **OK** button.

Microsoft TCP/IP Properties	×
IP Address DNS WINS Address Routing	-
An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.	
Adapter:	
[1] Intersil PRISM2.5 PCMCIA Adapter	
 <u>O</u>btain an IP address from a DHCP server <u>S</u>pecify an IP address 	
IP Address:	
S <u>u</u> bnet Mask:	
Default <u>G</u> ateway:	
Advanced	
OK Cancel Apply	

17. Now, the network components will finish installing. You may then see a screen similar to that shown here asking you if you'd like to disable any network bindings. Be sure to check with your network administrator before making **ANY** changes and then click the **Next** button to continue.

Network Setup Wizard	You may use this page to disable network bindings or arrange the order in which this computer finds information on the network. Show Bindings for: ■ services Image: Service Servic
	< Back Next > Cancel

18. At this point, Windows NT will let you know that it is ready to start the network. If you'd like to stop the procedure, click the **Back** button. To continue, click the **Next** button.

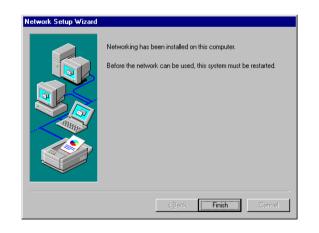


Wireless PC Card

19. At this point, Windows NT will let you know that it is ready to start the network. If you'd like to stop the procedure, click the **Back** button. To continue, click the **Next** button.

Network Setup Wizard	Select whether your computer will be participating in a workgroup or a domain and enter the name of the workgroup or domain. If you are not sure which one to select or what name to enter, contact your Network Administrator.
	Make this computer a member of • Workgroup: WORKGROUP
	C Domain:
	Create a Computer Account in the Domain
	< <u>₿ack N</u> ext > Cancel

20. Windows NT has now completed installing the network. Click the **Finish** button to continue.

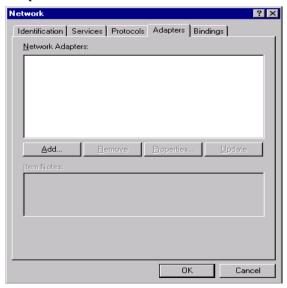


21. Windows will now ask you to restart your computer. Click the **Yes** button to restart.



If you Have Installed Network Hardware Before:

- 1. Windows NT is not a Plug-and-Play Operating System and will not automatically recognize the PC Card. To begin setup, select **Setting** from the **Start** Menu and Bring up the **Control Panel**. Then double-click on the **Network** icon.
- 2. To add the Network PC Card, you will want to click the **Adapters** tab and then click the **Add** button to continue.



3. A list of adapters will appear on the next screen. You will not want to select one of these, however, as your installation CD has all of the appropriate drivers. Click the **Have Disk** button to continue.



4. On the Insert Disk screen, type the path in the field. Then click the **OK** button to continue.

Insert Di	sk	×
F	Insert disk with software provided by the software or hardware manufacturer. If the files can be found at a different location, for example on another drive type a new path to the files below.	OK Cancel
	E:W/innt	

5. The select OEM Option screen will show the Intersil PRISM2.5 PCMCIA Adapter. Click the **OK** button to continue.

Select OEM Option	\times
Choose a software supported by this hardware manufacturer's disk.	
Intersil PRISM2.5 PCMCIA Adapter	
OK Cancel <u>H</u> elp	

6. You will now reach the screen shown below. This is called the Resources & Properties screen. Setting the fields on this screen is covered at the end of this section under the heading setting Resource & Properties Fields. Adjust the settings as appropriate and click the Continue button.

Intersil PRISM2.5 P	CMCIA Adapter Setup	_ 🗆	×
Resources			
	240		
IRQ Level:	9 PCMCIA card		
- Properties			
Mode:	Infrastructure Station		
SS ID:	Any		
DS Channel:	6 Tx Rate: Fully Auto	•	
RTS Threshold:	Disabled		
Fragmentation Threshold	Disabled 💌		
Power Saving:	Disabled 💌		
WEP:	Disabled 💌		
ATIM Window:	Disabled 💌		
Listen Interval:	Maximum		
OK	Cancel		

7. The PC Card has now been installed. You will see it added onto this screen. Click the **Close** button to continue.

Network			? ×
Identification Se	rvices Protocols	Adapters Bind	lings)
Network Adapter	s:		
E (1) Intersit P	RISM2.5 PCMCIA	, Adapter	
Add	<u>R</u> emove	Properties	<u>U</u> pdate
Intersil PRISM2.	5 PCMCIA Adapt	er	
		Close	Cancel

8. Windows will bring you to the **TCP/IP Properties** screen. Set the fields on this screen and then click the **OK** button.

Microsoft TCP/IP Properties
IP Address DNS WINS Address Routing
An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.
Adapter: [1] Intersil PRISM2.5 PCMCIA Adapter
O Obtain an IP address from a DHCP server
Specify an IP address
IP Address:
S <u>u</u> bnet Mask:
Default <u>G</u> ateway:
A <u>d</u> vanced
OK Cancel Apply

9. Windows will ask you to restart your computer. Click the Yes button to restart.



Configuration Utility

The **Configuration Utility** is provided to allow you further customization of the PC Card adapter and your wireless network.

Install the Configuration Utility

1. Execute the Sepup.exe file of Utility. Windows will bring you to the InstallShield Wizard screen. Click the **Next** button to proceed.



2. Windows will ask you for the Software License Agreement. Click the **Yes** button to continue.

Software License Agr	eement			
Press the PAGE DOWN	key to see the rest o	of the agreement.		
END USER LICENSE / PRISM Wireless LAN S		NTERSIL CORPOR	ATION'S	<u> </u>
NOTICE TO USER: IN LICENSE ONLY UPON CONTAINED IN THIS I ACKNOWLEDGES YO THIS AGREEMENT.	THE CONDITION T LICENSE AGREEME	HAT YOU ACCEPT NT. BY OPENNING	ALL OF THE TE THE SOFTWAR	ERMS RE THIS
This Intersil Corporation	("INTERSIL") Single	e user license agree	ment (the	•
Do you accept all the te setup will close. To inst				
		< Back	Yes	No

30

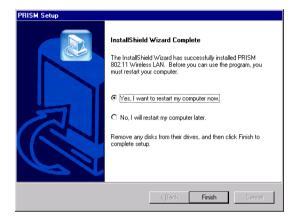
3. At this point, Windows will ask for the destination folder. Click the **Next** button to continue.

oose Destination Location			
Select folder where Setup will install files.			Ś
Setup will install PRISM 802.11 Wireless LAN	in the following	folder.	
To install to this folder, click Next. To install to another folder.	a different folde	er, click Brows	se and select
Destination Folder			

4. Windows will ask for program folder, click the **Next** button to proceed.



5. Windows will notify that installing has been completed. Click the **Finish** button to continue.



6. After installing the utility's software, installation will be complete. From the Start menu, select PRISM 802.11 and then click Configuration Utility. Windows will bring you to the Wireless LAN Configuration Utility screen. This Utility is divided into four parts: Link Info, Configuration, Encryption, About.

Configure the Configuration Utility

LINK INFO

The Link Info screen provides information about the current link between the PC Card and the wireless Access Point.

The **Current Channel** field shows to what channel the PC Card is set.

The **Current Tx Rate** field shows the transfer rate in megabits per second.

The **Throughput** fields show the rate at which data is transferred and received in Bytes per second.

The Link Quality and Signal Strength fields will be displayed by the strength of the block when applicable.

Wireless LAN Configuration Utility	X
Link Info Configuration Encryption About	
,	
State Associated - BSS ID = 00:90:D1:00:C6:0B	
Current Channel 4	
Current Tx Rate 11 Mbits/s	
Throughput (Bytes/sec)	
Tx 0 Rx 2,560	
Link Quality: Excellent (100%)	
Signal Strength: Excellent (93%)	
OK Cancel Help	

CONFIGURATION

The Configuration screen allows you to customize the setting for the PC Card and your wireless network.

The **Mode** setting determines the architecture of your wireless network. Select **Ad-Hoc** or **Infrastructure** Mode depending on your network type. The Ad-Hoc mode is used for a simple peer-to-peer network and allows the sharing of local resources only between PC Cards without needing a wireless Access Point. The **Infrastructure** mode allows a wireless network to be integrated into an existed, wired network through an Access Point. Infrastructure networks permit roaming between Access Points while maintaining a connection to all network resources and provide additional features, such as WEP security, power saving and extended range.

The acronym for Service Set Identifier, SSID is the unique name shared among all points in a wireless network. The SSID must be identical for all points in the network. It is case sensitive and must not exceed 32 characters.

The **Tx Rate** field shows the current transfer rate for the PC Card. To optimize performance and range, the Tx Rate should be set to **Fully automatic**, which will automatically adjust the transfer speed for best performance and longest range.

Power Saving Mode, or **PS Mode**, enables or disables the power saving features of your PC Card. This setting can only be enabled or disabled in Infrastructure mode.

The **Channel** setting specifies the channel used in wireless communication and should be set to the same channel as the other points in the wireless network.



ENCRYPTION

The 40-bit WEP keys can be generated from a user-defined passphrase.

The **Passphrase** can be any text string with a maximum of 32 characters.

WEP must be enabled from the Configuration screen in order to set the 40-bit key. To generate an encryption key:

- 1. Type exactly the same case sensitive PassPhrase in the PassPhrase field.
- 2. Click the **Apply** button to create the encryption key. Te Passphrase generates four unique keys.
- 3. Make sure that the Default Key is the same for each point on the network.

🔡 Wireless LAN Configuration Utility	×			
Link Info Configuration Encryption About				
Your encryption settings must match those of your network, or your computer will be unable to communicate.				
Encryption (WEP) 128 Bit				
VEP Key Entry Create with Passphrase Passphrase				
Manual Entry				
Кеу 1 мм мм мм мм				
MW MW MW				
NN NN				
Apply				
OK Cancel Help				

ABOUT

The **About** screen shows the release information for the Configuration Utility.

📃 Wireles:	s LAN Configuration Utility	×				
Link Info	Configuration Encryption About					
H	Intersil PRISM 802.11 Wireless LAN					
	Product Version: 1.50					
- Driver -						
Version:	0.30.01.5 Date: Apr 06, 2001					
Driver:	Intersil PRISM2.5 PCMCIA Adapter					
- Configu	iration Utility					
Version:	4.06.4.13 Date: Mar 22, 2001					
	nware					
Version:	01.00.03.00 ID: SF010100					
Co	Copyright (C) Neesus Datacom Inc. 1997-2000					
	OK Cancel He	ip				