

Powerline Network

Instant Networks for Internet Access...and More! Solution for SOHO, SMALL OFFICE AND HOME OFFICE

Utility Program User Guide

for

ALL16820x

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1. Introduction

This Utility Program enables users to find ALL16820x 200Mbps PLC Ethernet Bridge devices on the Powerline network, measures data rate performance, ensures privacy and performs diagnostics by setting user defined secure Powerline networks.

The model-name ALL16820x is a replacement for all devices of this series, including ALL168203, ALL168205, ALL168207 etc., as they are using the same software-utility. The screenshots in this manual are valid for all types, even if they show a different model-name.

Operating System	Microsoft Windows 2000, XP or Vista
CPU	Intel Pentium III or better, clock rate faster than 2.0GHz recommended
RAM	At least 128MB
Screen Resolution	Any resolution
Free Disk Space	At least 20MB
Network Interface	At least one Fast Ethernet (10/100 Mbps) network card, and Ethernet Cord

1.1. System Requirements

1.2. Installation

First step, you need to verify that there is no any other Powerline Utility installed on your computer before installing this utility. If there is another utility installed, please uninstall it and restart your computer.

Second step, please insert the Utility CD-ROM into the computer's CD-ROM drive. The CD will launch a browser for installation as shown in Figure 1. Click the necessary link to start installation:

ALL168203 Installation Kit



Figure 1: Installation Browser Snapshot



Figure 2: Installation Dialog Box

1.3. Run the Utility

After installing the Utility Program, please run the Utility Program from the Start / All Programs or double-click the utility icon on the desktop. Figure 3 is the main frame screen of the utility program. This screen shows a ALL16820x 200Mbps PLC Ethernet Bridge device connected as a local device and another two ALL16820x 200Mbps PLC Ethernet Bridge devices as remote devices.

1682	203 Utility						
lain	Privacy Diagnostics Abo	ut					
Local D	evice(s) on your computer:						
TEI	MAC Address	CCo Mac Address: 00:08:ED:07:C6:7C					
03	00:08:ED:07:C6:7C						
i 2 Powe	rline Devices detected	Network Type: Public	Connected				
TEI	Password	MAC Address	Bridged MAC Address	Speed(Mbps)			
04		00:08:ED:07:D4:95	FF:FF:FF:FF:FF:FF	0			
05		00.00.ED.FF.C0.0A	00.0D.80.03.34.CE	137			
-							
			Enter Password	Add Remote	Scan		
				Close	Cancel		

Figure 3: Utility Program Main Screen

2. How to use

There are four Tabs (Main, Privacy, Diagnostics, About) in the Utility program layout. Each Tab will launch a different frame and provide different functions. Sec. 2.1~2.4 explains each frame's functions:

2.1. Main Frame

The "Main" frame will list all the ALL16820x 200Mbps PLC Ethernet Bridge devices logically connected in current available Powerline networks.

Upper Window

The upper window, entitled "Local Device(s) on your computer", shows all the local ALL16820x 200Mbps PLC Ethernet Bridge devices directly connected to your computer via Ethernet. In most cases, there is only one device shown in the window. If you have more than one NIC (Network Interface Card) on your computer and each of them connects ALL16820x 200Mbps PLC Ethernet Bridge devices, you will find more than one local ALL16820x 200Mbps PLC Ethernet Bridge devices shown in the upper window. The Utility will scan the Powerline network periodically to search for all the ALL16820x 200Mbps PLC Ethernet Bridge devices, and keep the information updated.

CCo MAC Address

This window shows the MAC Address of the "CCo"(Central Coordinator) inside this Powerline network. The CCo is automatically appointed by the Powerline network and cannot be changed unless the original CCo is unplugged.

Lower Window

The lower window lists all the ALL16820x 200Mbps PLC Ethernet Bridge devices discovered in the current logical Powerline networks. This window will report each ALL16820x 200Mbps PLC Ethernet Bridge device's connection status, as shown in Figure 4:

ALL168203 Utility										
Main	Main Privacy Diagnostics About									
Local I	Local Device(s) on your computer:									
TEI	MAC Address	CCo Mac Address: 00:	08:ED:07:C6:7C	ALLNET						
03	00:08:ED:07:C6:7C									
2 Pow	erline Devices detected	Network Type: Public		[Speed(Mbps)						
04	Fassword	00:08:ED:07:D4:95	FF:FF:FF:FF:FF:FF							
03		00:08:ED:FF:C0:0A	00:0D:60:05:34:CE	197						
			Enter Password	Add Remote	Scan					
	Close Cancel									

Figure 4: The main frame screen

The **"TEI"** column shows the unique **"***T*erminal *E*quipment *I*dentifier" of each ALL16820x 200Mbps PLC Ethernet bridge inside the Powerline network. This TEI value is automatically appointed by the Powerline network and cannot be changed unless the device is unplugged.

The **"Password"** column shows each previously entered ALL16820x 200Mbps PLC Ethernet Bridge 's password. You can input the password by clicking the "Enter Password" button.

The "**MAC Address**" column shows the ALL16820x 200Mbps PLC Ethernet Bridge 's MAC address.

The "**Bridged MAC Address**" column shows the NIC (Network Interface Card) this ALL16820x 200Mbps PLC Ethernet bridge connects to. If no NIC is connected, its default value is "ff:ff:ff:ff:ff:ff:ff:ff.

The "**Speed(Mbps)**" column shows the remote device's mutual transmit speed with the local device, in Mbps(Million bits per second).

"Enter Password" button

If you want to create a private network, you need to enter the device password first. Please click on the intended device to make it highlighted then click the "Enter Password" button(Figure 5), and the "Set Device Password" dialog box will show up(Figure 6). The selected device's TEI and MAC address are shown in the dialog box. After entering the password, click "OK" button. If the input password does not match the device's real password, error message will be shown and please retry again.

ALL168203 Uti	ility				
Main Privacy	Diagnostics About				
Local Device(s)) on your computer: Address	CCo Mac Address: 00:0	18:ED:07:C6:7C		
01 00:08:	ED:07:C6:7C	1		CALLINE !	
1 Powerline De	vices detected N	letwork Type: Public		Canad (Milara)	
03	010	00:08:ED:FF:C0:0A	00:0D:60:05:34:CE	197	
		The intended de	vice is highlighted after	click	
	After	that, click this button t	.0		
	set tr	ne device's password			
1			Enter Password	Add Remote	Scan
				Close	Cancel

Figure 5: Click on the intended device

Set Device P	Password	Set Device	Password
TEI: Mac Addr: Password:	03 00:08:ED:FF:C0:0A The Password typical appears as a number an letter code, in groups of four, separated by dashes. (ie XK8Y-GH26-BR1K-LZSA) It is found on the device or packaging. OK Cancel	TEI: Mac Addr: Password:	03 00:08:ED:FF:C0:0A TGHA-GBEW-URSM-QXTA The Password typically appears as a number and letter code, in groups of four, separated by dashes. (ie XK8Y-GH26-BR1K-LZSA) It is found on the device or packaging. OK Cancel

Figure 6: Set Device Password

"Add Remote" button

The "Add Remote" button is used to add a remote device which is not listed in the lower window to your logical network (for example, a device is currently in another logical network). You can click the "Add" button to add the device to your logical network. The dialog box in Figure 7 is shown after clicking the "Add" button, and it allows you to enter both the Network name and the password. The device will be added to your logical network only if the Network name and passwords are both correct. Like the "Enter Password" function, incorrect passwords will be warned and denied.

Network Name:	HomePlugAV
Password:	PASS-WORD-GOES-HERE
	The Password typically appears as a number and letter code, in groups of four, separated by dashes.
	(ie XK8Y-GH26-BR1K-LZSA) It is found on the device or packaging.
	OK

Figure 7: Add Remote Device

"Scan" button

The "Scan" button is used to search for the ALL16820x 200Mbps PLC Ethernet bridge devices connected to your logical network immediately. By default setting, It will automatically scan every 10 seconds and updates the display lists.

2.2. Privacy Frame

When rolling out of factory, every ALL16820x 200Mbps PLC Ethernet bridge device carries a default logical network name: **"HomePlugAV"**. The "Privacy" frame provides functions to manage this logical network name and create private network.

Main Privacy Diagnostics About Use this screen to create a Private Network that provides you with extra security.						
HomePlugAV OR Use Default (Public Network) Do not share the network name with others you do not want to be part of this network.						
After setting the name above, choose how it will be applied below: Name" input will be changed to the						
Input "Network Name" here default "HomePlugAV"						
Only the device attached to this computer (the Local Device). (Isolates this computer from others): ALL devices whose Password has been entered. (They communicate together but are isolated from devices with a different network name) Set Local Device Only OR Set All Devices						
Click this button to set local device's Click this button to set local device and all						
"Network Name" using the name remote devices' "Network Name" using the currently filled in the input box name currently filled in the input box						
CloseCancel						

Figure 8: Privacy Frame Screen

"Use Default (Public Network)" button

You can directly set the network name back to the default "HomePlugAV" by clicking the "Use Default (Public Network)" button first, then press the "Set Local Device Only" button.

"Set Local Device Only" button

The "Set Local Device Only" button is used to change the network name of the local device only. After changing the network name to a new one, all the devices existing in the same network before will no longer be able to communicate or respond to you, because they will not have the same network name with the local device.

"Set All Devices" button

The "Set All Devices" button is used to change the whole logical network's devices, both local and remote, that showed in the Main frame. Please fill in each remote device's password in advance following the instructions in Sec 3.1("Enter Password" button) so that this function can proceed normally.

2.3. Diagnostics Frame

The "Diagnostics" frame shows the system information and the history of all the devices that have been found before (Figure 9).

The **upper window** of Diagnostics frame shows the host computer's system data and it shows:

- MAC Address of all NICs (network interface card)
- MAC Address and the firmware version of the ALL16820x 200Mbps PLC Ethernet bridge device which is connected to each NIC
- Computer name
- User name
- Processor and operating system information
- Utility program version
- Versions of all the driver DLLs and libraries used

ALL168203 Utility							
Main Privacy Diagnostics	\bout						
System Information On NIC #1 MAC = 00:0C:76:AF:95:6B No HomePlugAV Device Connected On NIC #2 MAC = 00:13:46:72:7F:4E HomePlugAV Device #1 MAC = 00:08:ED:07:C6:7C FW Version: INT6000-MAC-3-3:3368-02-3004:20081127-FINAL-B Computer name: KEN-PC User name: Administrator Microprocessor: 586 OS Platform: Windows Server 2003 V5:2, Build 3790							
Remote Device History (Log)							
TEI MAC Address	Password		Speed(Mbps)	Last Seen	DM		
03 00:08:ED:07:06:70			local device	Mar 24 03:30 Mar 24 03:30	PM PM		
04 00:08:ED:07:D4:95			0	Mar 24 03:30	PM		
		The record wi	ll be highlighted a	after click. If this	1		
	K	device is curre	ently not active, u	sers can click			
		the button "De	elete" to delete t	his record.			
Delete	View Report		Save Report		Print Report		
				C	Close Cancel		

Figure 9: Diagnostics Frame Screen

The **lower window** of Diagnostics frame contains the history of all remote devices which have been found by the computer previously. All the devices will be shown here, regardless of they are currently active or not. The following information is available from the list:

- TEI
- MAC Address
- Password
- Speed(Mbps)
- Last Seen

The diagnostics information displayed on the upper and lower window could be saved to text file or print out by printers. Devices which no longer existed in the network can be deleted using the "Delete.." button.

"Delete ... " button

Select the device which is no longer existed in the network by clicking its record first, then click this button to delete the record.

"View Report..." button

Click this button to view all the device information displayed on the upper and lower window by the default text editor.

"Save Report..." button

Click this button to save all the device information displayed on the upper and lower window to a text file directly.

"Print Report..." button

Click on this button to print the all diagnostics information to your default printer directly.

2.4. About Frame

The "About" Frame shows the software version, and manufacturer information.

Figure 10: About Frame Screen