Quick Installation Guide

For MS41p1

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Chapter I Introduction

1.1 Overview

The MS41p1 supports ADSL, ADSL2 and ADSL2+ over the existing copper lines, with downstream transmission rate up to 24Mbps (ADSL2+) and upstream transmission rate up to 1.024 Mbps. They can support PPPoA (RFC 2364 - PPP over AAL5), PPPoE (RFC 2516 – PPP over Ethernet) and RFC 1483 encapsulation over ATM (bridged or routed).

1.2 Features

Standards Compliance

◆ ANSI T1.413 Issue 2 compliant

◆ ITU-T G.992.1 (G.DMT) compliant: Up to 8Mbps downstream and 896Kbps upstream data rate

◆ ITU-T G.992.2 (G.lite) compliant: Supports splitter-less implementation and up to 1.5M downstream and 512Kbps upstream data rate

◆ ITU-T G.992.3 compliant: Better performance on long lines, and improve interoperability between chipset suppliers

◆ ITU-T G.992.5 Annex A compliant: Up to 24Mbps downstream and 1Mbps up stream data rate

◆ ITU-T G.992.5 Annex M compliant: Up to 24Mbps downstream and 3Mbps up stream data rate.

Hardware Features

◆ Compatible with various local telecom equipments: Huawei, ZTE, DTT, Alcatel,

Lucent, Ericsson and so on.

◆ Stable transmission speed even at a transmission distance of 5KM
◆ Supports 8 PVCs

Software Features

◆ Supports RFC 1483 protocol (MPOA), RFC 1577 protocol (IPOA),RFC 2364 protocol (PPP over ATM) ,and RFC 2516 protocol
◆ Firmware upgrade and configuration over WEB

Operating Environment

◆ Operating: ＋0～ ＋50

◆ Non-operating: －40～ ＋85

Humidity

◆ Operating: 10%~95% RH
◆ Non-operating: 10%~95% RH

Standard Approval

◆ CE CLASS B.
◆ FCC PART 15 CLASS B
◆ FCC PART 68
◆ UL 1950

Chapter II Hardware setup

2.1 Interface & Indicator Light Introduction

2.1.1 MODEM Indicator Light & Interface Introduction

Item	Label	State Introduction
Indicator Light	DSL	ON：MODEM synchronized to the DSLAM
		Flash: MODEM not synchronized
	Internet	OFF: in Bridge mode or ADSL disconnected
		ON: in Router mode and ADSL connected, can transmit IP packets
	Ethernet	ON： linked to network card of PC
	Power	ON：MODEM power on
Interface Introduction	DSL	Connect to the ADSL line or the 'MODEM' port of Splitter
	Ethernet	Connect to the NIC with a crossed network line

	PWR	Connect to power adapter enclosed in the package
	Reset	Restore default settings
	⏻	Power switch

2.1.2 Interface of splitter

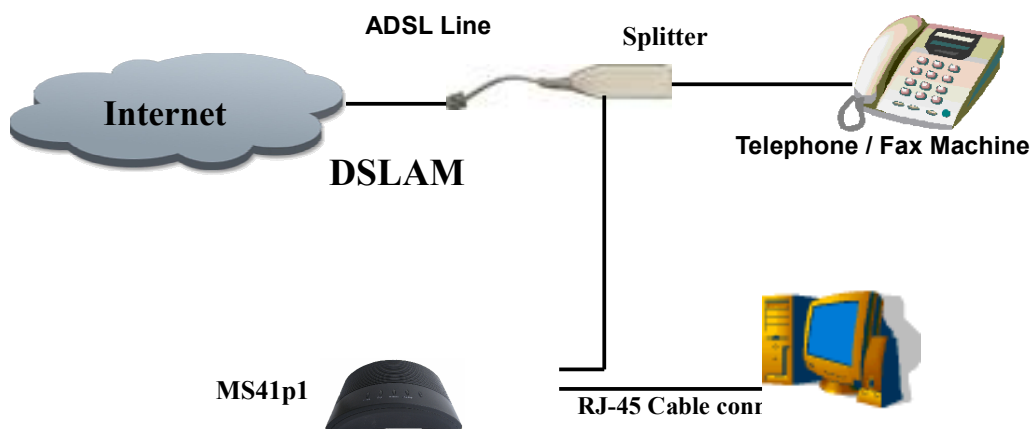| Label	Introduction
LINE	Connect to the ADSL line
MODEM	Connect to 'ADSL' port of the MODEM
PHONE	Connect to the phone

2.2 Package checking

First of all, please check out if the articles listed below present.

Item	Quantity	Remark
Power Adapter	1	
Phone line	2	
RJ45 Network Line	1	
MODEM	1	
Splitter	1	

2.3 Layout

Note: Splitter is needed to: -Filter out line noise, i.e.

- Prevent line noise when there is incoming / outgoing call;

- Prevent connection speed drop when using modem.

Chapter III Configuration Instructions

This chapter introduces instructions on how to configure MS41p1 Router.　All the following instructions are aimed at Router version, please skip this chapter if the product you purchased is Modem version in that Modem can be used directly without further configuration.

3.1 Before Configuration:

Before installation of ADSL, please check the following facts with your brand-band service provider:

(1)　Internet Connection Mode_____

　A．Static IP；　B．PPPOE；C．PPPOA；

(2)　If Static IP connection is adopted, the service provider needs to submit public IP_____, subnet mask_____, gateway_____, and DNS_____.

(3)　If PPPOE or PPPOA is adopted for connection, the service provider needs to provide the info: username_____, password_____.

(4)　Data encapsulation method:_____

　A．LLC/SNAP　　　B．VCMUX

(5)　VPI=_____　　　VCI=_____

(6)　Debugging Code_____

　A. T1.413　B. G.dmt　C. G.lite

Note: The default is adaptation, which can negotiate and match the debug code of the center automatically; thus no modification of setting is needed.

## 3.2 Instructions to Configure Router Through Web Interface

Note: If the product you purchased is of Modem version, please use the device directly without further configuration on ADSL.

3.2.1 Web Log-In

After the hardware installation, turn on the power to start. Please be sure your computer can ping through the LAN port of ADSL(Default IP: 192.168.1.1), then start IE software and type in http://192.168.1.1 on the address bar. Please enter username and password after confirmation.
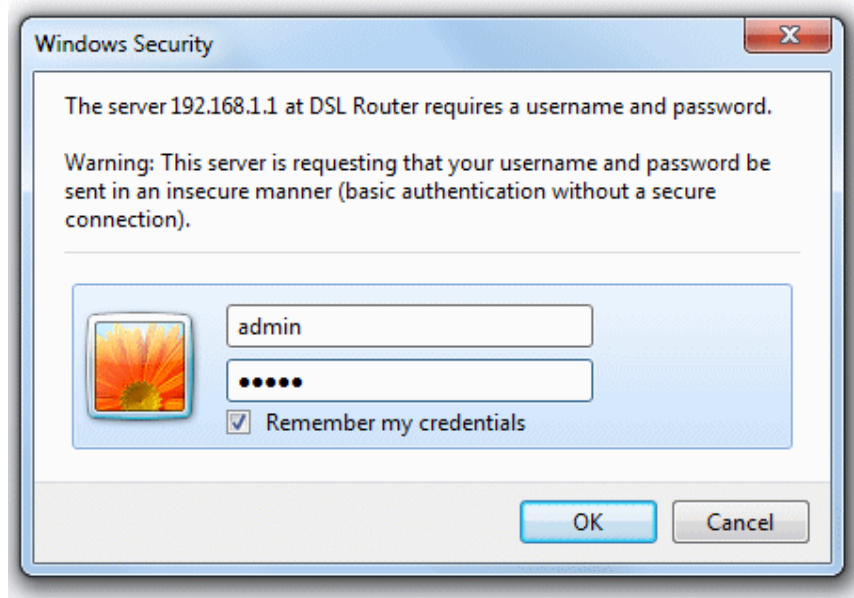
Please enter the correct username and password (the default username and password are both **admin**.) to open the WEB management interface. The main page will be displayed as follows after successful log-on (the actual display might differ with software versions):
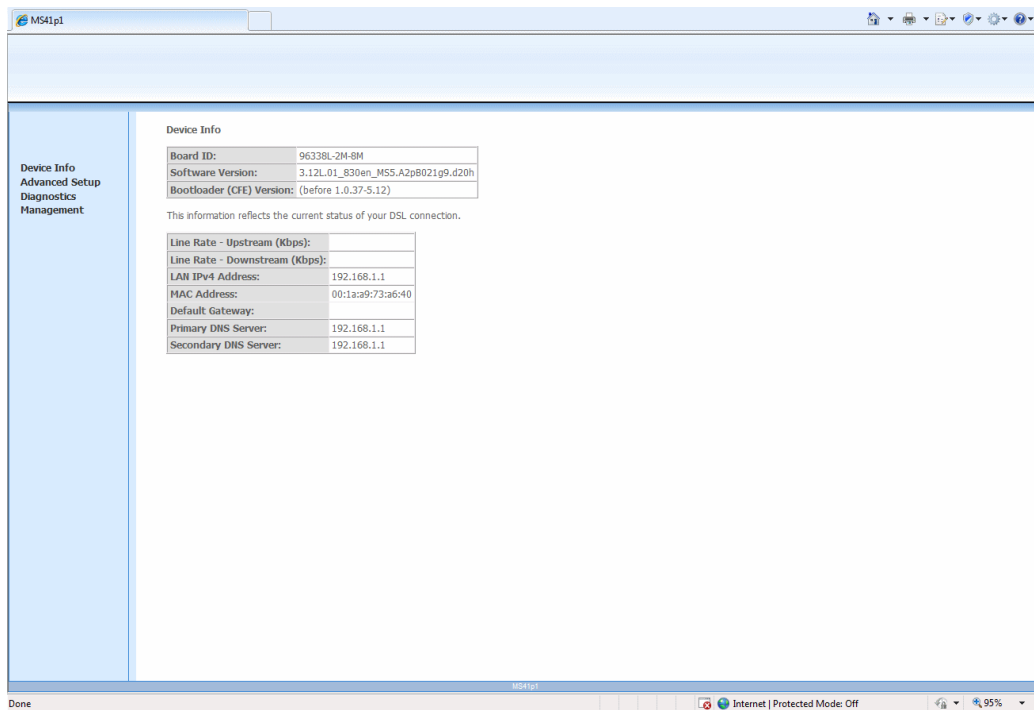
3.2.2 WEB Interface Descriptions

There are seven options on the main menu on the left side of the main page. Every option can be processed to setup the systematic features, and user can configure each function respectively in accordance with specific needs. The detailed descriptions are as

follows:

    1) Device Info

        Including "Summary", "WAN" info, "Statistics", "Router" info, "ARP" info and other submenu items.

    2) Advanced Setting

        Including "WAN" setting, "LAN" setting, "Security", "Routing", "DSL" and other items.

    3) Diagnostics

        To display the testing result of the status of each connection.

    4) Management

   Including "Setting", "System Log", "Access Control", "Update Software", "Save/Reboot" and other items.

Please refer to the following instructions on the application of relevant configurations.

3.3 Instructions on the Application of Common-use Function Modules

3.3.1 Save & Reboot

As usual, after some modifications on the settings, in order to validate these modifications, we should save the changes and reboot the system to make them effective.

On some setting pages, you can click on "Save/Reboot" button on the bottom of the page to save the setting modifications and restart the system; or else, you can enter "Management"－> "Save/Reboot" page after modifications to save all the setting changes and restart the system, the interface is displayed as below:
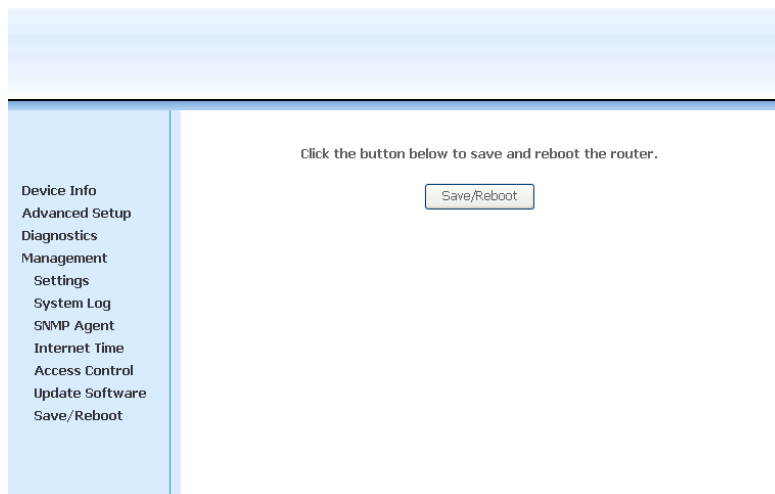
3.3.2 LAN Setting

1) Please select "Advanced Setting"—> "LAN" on the main page to enter the LAN setting interface. On this page, you can setup the IP address and subnet mask for the LAN port. Please press "Save" button to validate the modifications. The setting interface is shown as below:

Local Area Network (LAN) Setup

Configure the DSL Router IP Address and Subnet Mask for LAN interface. Save button only saves the LAN configuration data. Save/Reboot button saves the LAN configuration data and reboots the router to make the new configuration effective.

IP Address: 192.168.1.1
Subnet Mask: 255.255.255.0

☑ Enable UPnP

☐ Enable IGMP Snooping

○ Disable DHCP Server
◉ Enable DHCP Server
  Start IP Address: 192.168.1.2
  End IP Address: 192.168.1.254
  Leased Time (hour): 24

☐ Configure the second IP Address and Subnet Mask for LAN interface

[Save] [Save/Reboot]

2) After the modification of IP address for LAN port, you should re-log on WEB management interface via the new IP address.

3) If the new IP address does NOT belong to the same IP section as the original IP address, you need to change the IP of PC web card to conform to the new IP section in order to perform further WEB managing operations on ADSL device.

4) Please be sure to save the modification after resetting IP of ADSL port.

3.3.3 DHCP Setting

Please select "Advanced Setting" —> "LAN" on the main page to enter the LAN setting page as shown as above:
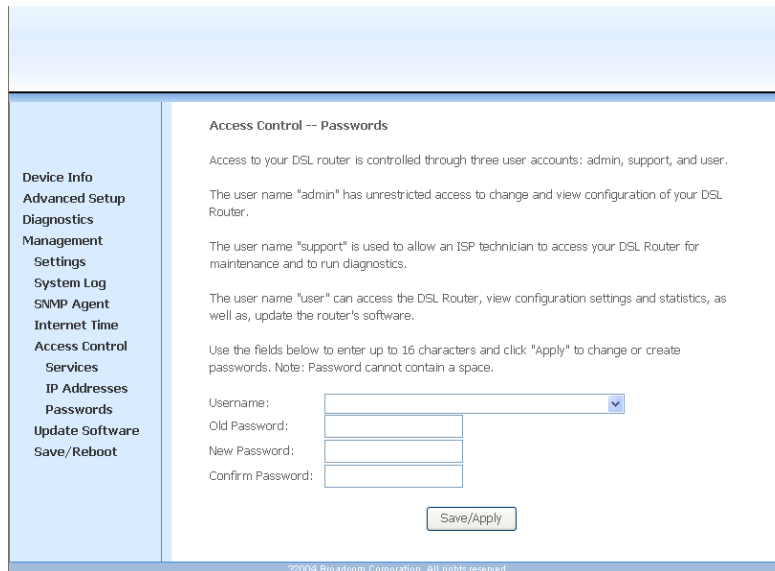
1）DHCP modes: disable DHCP service, or enable DHCP service. Please refer to the following setting if DHCP service is enabled.

2）DHCP Server Setting

Please select to enable DHCP service. Setup the address pool of the range of starting IP and ending IP and expiration time.

Please be sure to save all the modifications after the setup.

3.3.4 User Management Setting

Please select "Management"——> "Access Control" ——> "Passwords" on the main page as shown below to manage users with different priority. Also you can change password on this page.

Draw down and select the username to be modified, then after the entry of the original and new passwords, confirm the new password and click on "Save/Apply" button to validate the new password.

Chapter IV Typical Application Cases

4.1 Single-user Log-on (supported both by Modem version and Router version)

4.1.1 Dialing Mode (Dynamic IP)

4.1.1.1 ADSL Setting: No setting modification is required on the MS41p1, please adopt the default settings;

4.1.1.2 Computer Setting: A special dialing software needs to be installed on user PC, software such as EnterNet300, EnterNet500 or WinPoET, etc. (with exception of WinXP OS); then enter onto dialing column the username and password provided by broad-band service supplier, internet will be connected after successful dialing.

4.1.2 Special Line Mode (Static IP)

4.1.2.1 ADSL Setting: No setting modification is required on the MS41p1, please employ the default setting;

4.1.2.2 Computer Setting: Please enter TCP/IP properties of PC Web Card and type in the public IP, subnet mask, gateway and DNS provided by the broad-band service supplier.

Note: The default PVC connection parameters can meet the needs of the majority of areas, so user is not required to reset the parameters; if the modification of relevant parameters is desired, please delete the original default PVC connection and then create a new connection. (A MER protocol (1/39) is included in the default setting, which cannot be deleted or modified.)

Please refer to the following instructions to configure specific application modes.

4.2 Multi-user Log-on (supported only by Router version via its router feature)

4.2.1 Dialing Mode (Dynamic IP)

Description: Under this application, PPPOE(RFC2516) or PPPOA（RFC2364）protocol must be supported by the center.

4.2.1.1 Parameter Configuration

Please select "Advanced Setting"——> "WAN" on the main page to enter the WAN setup page as shown below:

1）Please select the PVC to be setup and click on "Edit" button to perform the following configurations:

2）To setup VPI/VCI and service types, please refer to the requirements of network service supplier. Supposedly, VPI:0, VCI:35, then the service type is "UBR without PCR".

3）After the setup, please press "Next" to enter connection types and packaging setting page. Suppose that PPPoE protocol and LLC packaging mode are employed in this case as shown below:：
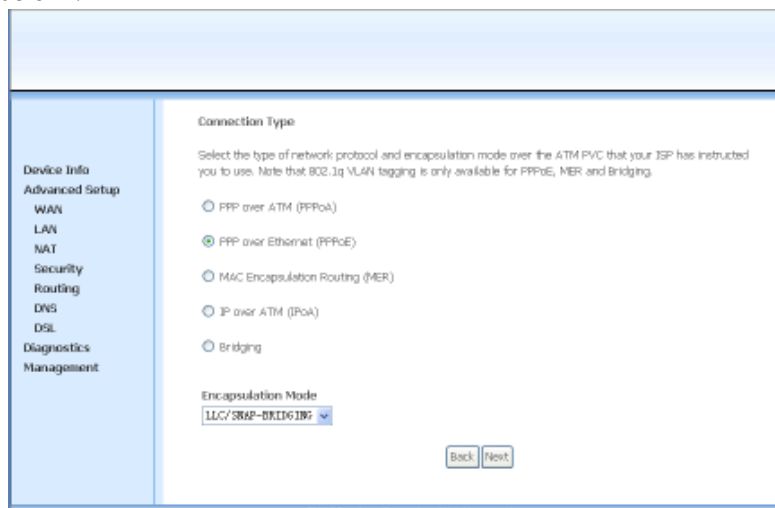
4）Please press "Next" after the setup to enter the dialing username/password setting page as shown below. Supposedly, the username and password are 8163/8163.

5）Please press "Next" after the setup to enable IGMP and WAN services, the service name setting page is shown as below:

6）Please press "Next" after the setup to enter the main setting form as shown below. You can check the correctness of the former settings, please press "Back" button for modification if an error occurs. Please press "Save" button after confirmation and you will be redirected to WAN setting page as shown below after saving all the changes:

4.2.1.2 Requirements to Configure Web Card of User's PC:

LAN IP address, subnet mask and gateway (IP address of LAN port on ADSL) must be preset. Please be noted that every IP address must be at the same IP section as gateway. If DHCP server feature is enabled, then user only needs to start DHCP on PC port to seek the LAN IP address automatically.

4.2.2 Special Line Mode (Static IP)

Descriptions: Under this application, 1483Bridge protocol must be supported by the center.

4.2.2.1 Parameter Configuration:

Please select "Advanced Setting"——> "WAN" on the main page to enter the WAN setting page as shown below:

1） Please select the PVC to be modified, and press "Edit" button to enter the setting

page.

2）The basic setting methods and interface are identical with "4.2.1 Dialing Mode (Dynamic IP).But they differ on the third step to setup the connection modes. Please select "Bridge" mode on this and press "Next" to the server name setting as shown below:

Please press "Next" to enter the setting main form after the setup, and check the correctness of the settings then press "Save" button to complete Bridge Connecting Mode setting.

4.2.2.2 Requirements to Configure WEB Card of User's PC:

LAN IP address, subnet mask and gateway (IP address of LAN port on ADSL) must be preset. Please be noted that every IP address must be at the same IP section as gateway. If DHCP server feature is enabled, then user only needs to start DHCP on PC port to seek the LAN IP address automatically.

FCC STATEMENT

1. 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.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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:

・ Reorient or relocate the receiving antenna.

・ Increase the separation between the equipment and receiver.

・ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

・ Consult the dealer or an experienced radio/TV technician for help.