



The PostBase Connectivity Wizard

The PostBase Connectivity Wizard allows you to easily set up your PostBase postage machine to suit your organization's arrangements. This document will guide you through the steps of the wizard.

Depending on the network configuration in your organization, this may be very straightforward. However, in some cases, you may need to get information from your network administrator - where necessary this is indicated in the steps below.

The Connectivity Wizard runs automatically the first time you turn on your PostBase postage machine. However you can change any settings at any time later from the main menu (under 'Manage Connection').

Section 10 summarizes the information a network administrator may need about the postage machine; it also includes a table where you can record the settings you have used.

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1 Introduction

The PostBase postage machine needs a connection to the FP Mailing Solution Infrastructure (FPI) in order that it can download funds and data. It is recommended that an Ethernet (LAN) connection is used for this. This is the type usually used to connect computers to the Internet, both at work and in the home (e.g. using DSL).

If necessary the PostBase postage machine can also use a modem connection -that is the older, slower method over the telephone. Modem connections are, however, only intended for those users cannot use an Ethernet connection since they are much slower and offer a more restricted service.

This document gives you details on setting the PostBase up to use these communication methods.

2 Preparation

Before you get your postage machine you must ensure that you will have the correct connection arrangements in place. This will ensure that the postage machine can be fully operational from its first day.

For an Ethernet connection, the PostBase needs:

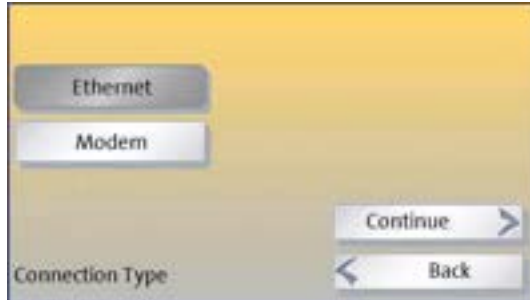
- An Ethernet connection (minimum 10MBit/sec) in the vicinity of where the postage machine will be operated. The PostBase itself comes with a 3 meter (9.8 foot) cable. The PostBase and the included cable use an RJ45 type of connector. If you use a different cable, then we recommend it is of type CAT5E.
- If you work in a medium or larger organization, then the PostBase will probably have to be connected to an internal network, which will include a proxy server. If so, we recommend you check with your network administrator, whether “DHCP” is supported and, if not, then you will need an “IP-Address”. The last page of this document includes technical details for your network administrator. It includes a list of all information you will require.

If you do not have an Ethernet connection available, then you will need to use a telephone/modem connection. In this case you should make sure you have ordered the PostBase USB modem adapter, and should have a suitable telephone socket within 3 meters of your PostBase.

We strongly recommend using your PostBase postage machine with an Ethernet connection.

3. First Steps: Type of connection, Ethernet or modem?

In the wizard you will first be asked whether you want to use an Ethernet or Modem based connection.



Select the type of connection in the first screen of the wizard.

The set up for Ethernet connections is described in the next section.

For modem connections see section 8.

4. Setting up Ethernet Connections

4.1 DHCP: Is the IP Address assigned automatically?

For an Ethernet connection, you will next be asked whether 'DHCP' connections can be used in your network or not. Using DHCP simplifies the configuration and so we recommend this if possible.

What's DHCP?
 Dynamic Host Configuration Protocol (DHCP) allows the automatic allocation of an 'IP address' for the device within your network by your router or network server. Using DHCP makes the configuration process much simpler.

If you are not sure whether DHCP is supported, we suggest you simply try making a connection with DHCP. If it isn't supported, then you will get an error and will simply have to run through the wizard again.



Simply touch your chosen option and then 'CONTINUE'.

For another way of finding out whether DHCP is supported, see section 7. Otherwise, if you have a system administrator, ask them.

4.2 Specifying a proxy server

Next, you will be asked about a 'Proxy Server'. If your organization uses one, you will have to enter its details so that the meter can get access to the Internet.

What's a Proxy Server?

Proxy servers are used in most larger organizations as a bridge between their internal networks and the Internet. It can protect the computers in the internal network against attack from the wider Internet.



If you are in a small office, it may be that you have a direct connection to the Internet through your router. In this case you should answer 'DISABLED' here. Otherwise, answer 'ENABLED'.

- **If you have entered 'ENABLED', then next follow the instructions in section 5, "Enter Proxy Server Settings".**

4.3 Final steps

Finally you will be shown a confirmation of all the entries you have made. Check you have entered the details correctly.

After you touch 'CONTINUE' the meter will test the connection.

If it can't connect, the wizard will return to its starting point. In this case, you should first check the connections, then the settings you have entered. You can also look at the guide in section 7, or check the settings with your system administrator.

If all goes well, PostBase will now continue with the remainder of its configuration...

5 Entering Proxy Server Settings

If your network uses a proxy server, you will need to enter its details into the wizard. Before you can do this, you will need to obtain the needed information.

You will need the following:

- The IP address of the proxy server and the port number to use
- Whether authentication is to be used, and if so, the corresponding user name and password.

➤ **Either contact your network administrator, or follow the instructions in section 7.**

What's an IP address?

Every computer or device that communicates over the Internet must have an IP (Internet Protocol) address. This also applies to most of today's large networks within companies. Common IP addresses are written as 4 groups of 3 digits, separated by full stops e.g. 123.567.567.543.

1) Enter the **IP address** of the proxy server

A keyboard will appear on the display in which you can enter the IP address.

Each of the 4 sets of numbers must be in the range 0 to 255 and they must be separated by full stops (bottom left key).

You can use the CE (bottom right key) to successively correct the last entries.

2) Enter the **Port Number**

The 'port number' must be entered next. This will normally have the value "8080".

Occasionally another value might be needed, for example "80".

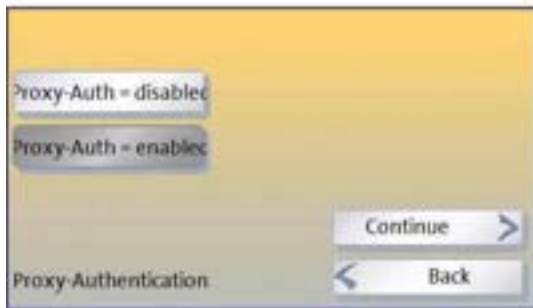
See section 7 to confirm the value for your network, or contact you network administrator.

3) Specify whether your proxy requires **Authentication**

If your proxy server needs authentication, then you must set `PROXY-AUTH=ENABLED` here and enter the details on the next wizard pages.

What's Proxy Authentication?

Often a proxy server needs to know who is talking to it - to confirm that it is a known user of the organization's network who is authorized to have access to the Internet. Any device will then have to log-on to the proxy server with its own user name and password. This process is called 'authentication'.



If in doubt, contact your network administrator. If the proxy needs authentication they may need to give you a special user name and password for the device.

3a) Enter the **User Name**



An alpha-numeric keyboard will appear on the display in which you can enter the user name. This keyboard functions in a comparable way to similar keyboards on mobile phones -touching the button a number of times rapidly will cycle through the possible values. Touching another button, or waiting for a second or so, will cause the selected value to be entered.

3b) Enter the **Password**



You can enter the password in a similar way. It operates slightly differently in that, once the character has been selected, it is then displayed as " * ".

This completes the entry of the proxy server details -touching 'CONTINUE' will take you to the next part of the wizard.

6 Manual Configuration of an Ethernet Connection

Larger organizations may want to have explicit control over the IP addresses of the devices connected to their networks. Here, IP addresses will be individually allocated to each device by the network administrator and must remain fixed. In this case you will have to enter the allocated IP address manually into your PostBase.

Firstly you will have to contact your network administrators to ask them for an IP address. The information they may need is summarized in section 10 -there is also a table to record the details.

1) Enter the meter's **IP Address**

Use the numeric keypad to enter the number, as four groups of up to 3 digits. Don't forget the separating points!

2) Enter the meter's **Subnet Mask**

Similarly to the IP address, enter the subnet mask. You can get this from your network administrator, or follow the instructions given in section 7.

FAQs: ... What's meant by:

Subnet Mask

A network infrastructure in any organization will usually be split up into 'subnets' that connect associated groups of users. In this case the full IP address can be seen as having two parts - a prefix that identifies the subnet and the remainder that identifies a device in the subnet. The subnet mask shows how much of the IP address is formed by the prefix and how much by the rest. A typical subnet mask might look like '255.255.127.000'.

DNS server

We usually refer to websites by their web-address or 'URL', for example www.francotyp.com. In fact though these are just labels and actually computers just use IP addresses. The Domain Name System refers to a special type of computer server that translates web addresses into IP addresses. Hence a DNS server would return 80.67.28.145 when asked for the address

www.fp-usa.com

Default Gateway

Where an organization's network is split into a number of subnets, then the 'gateway' is the device that allows the traffic to flow out of the subnet and into the organization's wider network infrastructure - including other subnets and to the Internet (in this case, often through a proxy server). This default gateway will also have an IP address.

3) Enter the **Default Gateway** address

Enter this in the same way as the IP address in step (1).

4) Enter the **DNS** server address

Again, use the same method as in step (1).

- The next pages of the wizard let you set up details of your organization's proxy server. This is described in section 5.

Finally, before saving the information, a summary will be shown of all the entries, including the manual IP address and the proxy server.

Check these through before touching on 'SAVE'.

In the case of manual configuration, the PostBase meter must restart before the settings will become active. This happens automatically.

On rebooting the configured connection will be tested. If there is a problem, the wizard will return.

If all goes well, PostBase will now continue with the remainder of its configuration...

7 Gathering information about your network

You may be able to get the some of the network information you need from an existing computer attached to your network (using a physical, Ethernet connection). The instructions in the following sections show how to get this information from a computer running Microsoft Windows XP, Vista or Windows7.

There are two parts to this:

- Finding the **basic network settings**, including whether DHCP is enabled, and the Subnet Mask, Standard Gateway, and DNS Server details.
- Finding the **proxy server settings** (IP address and port).

7.1 Windows Vista, Windows7

In Windows7 or Windows Vista, follow the steps below.

7.1.1 Basic Network Settings



1. From the task bar, open the Control Panel
2. In the Control Panel, click on “View network status and tasks” link (located below the “Network and Internet” heading).
3. This opens the “Network and sharing center” dialog. Here, click on “Local Area Connection”, which will open the “Local Area Connection status” dialog
4. In the “Local Area Connection status” dialog, click on “Details...”
5. The “Network Connection Details” dialog box will be displayed. This gives the information you need, as described below.

In the Network Connection Details, the following information is available.

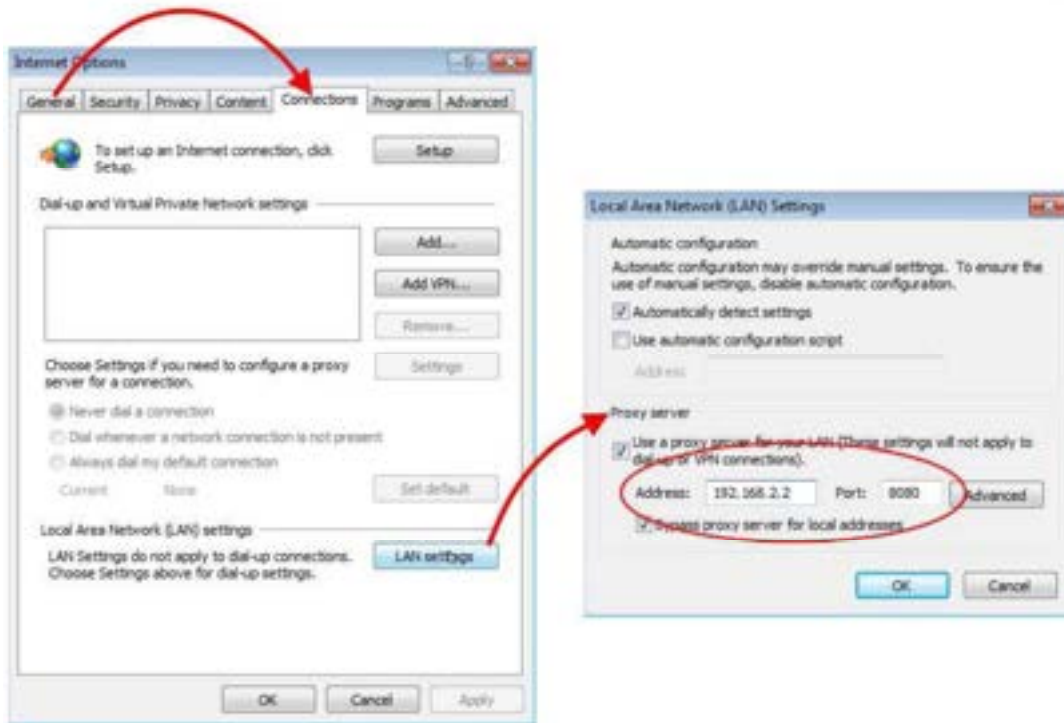
Property	Value
Connection-specific DN...	localdomain
Description	Intel(R) PRO/1000 MT Network Connect...
Physical Address	00-0C-29-43-4C-43
DHCP Enabled	Yes 1
IPv4 Address	192.168.220.129
IPv4 Subnet Mask	255.255.255.0 2
Lease Obtained	Monday, February 20, 2012 6:06:12 AM
Lease Expires	Monday, February 20, 2012 6:36:12 AM
IPv4 Default Gateway	192.168.220.2 3
IPv4 DHCP Server	192.168.220.254
IPv4 DNS Server	192.168.220.2 4
IPv4 WINS Server	192.168.220.2
NetBIOS over Tcpip En...	Yes
Link-local IPv6 Address	fe80:44f:a1ae:f441::3541:11
IPv6 Default Gateway	
IPv6 DNS Server	

1. If **DHCP Enabled** is shown as “Yes”, then the network supports DHCP, and the automatic procedure for allocating an IP address in section 4.1 can be used.
2. Here, the **Subnet mask** is shown. This is needed when you are configuring the IP address manually in section 6 -it must be entered during step (2) “Enter the meter’s Subnet Mask”.
3. Here, the **Default Gateway** is shown. This is needed when you are configuring the IP address manually in section 6. It must be entered during step (3) “Enter the Default Gateway address”. Note: Make sure you note the “IPv4 Default Gateway”.
4. Here, the **DNS Server** is shown. This is needed when you are configuring the IP address manually in section 6. It is the value that must be entered during step (4) “Enter the **DNS** server address”. Note: Make sure you note the “IPv4 DNS Server”.

7.1.2 Proxy Server Settings



1. From the task bar, open the Control Panel
2. In the Control Panel, click on “Network and Internet” link.
3. Then click on the “Internet Options” link to open the pop-up dialog “Internet Options”.

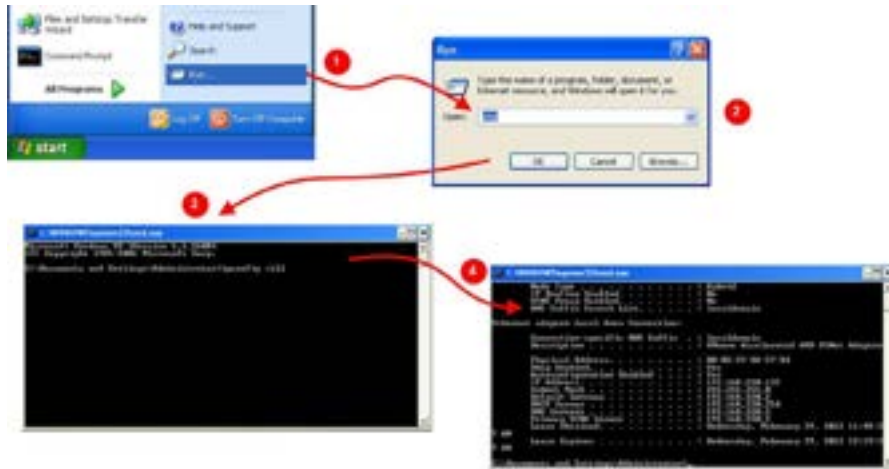


4. Click on the “Connections” tab, and then on the button “LAN settings” in this tab.
5. This will open up the dialog box “Local Area Network Settings”. Here the lower section called “Proxy Server” contains the IP Address and Port Number for the proxy server, as shown in the diagram.

In the example, the proxy server has an IP Address of ‘192.168.2.2’ and a Port Number of ‘8080’.

7.2 Windows XP

7.2.1 Basic Network Settings



1. From the “Start” button, choose the “Run...” option.
2. The Run dialog box will open. Here, type “cmd”, which will open a command line window in which you can type commands.
3. Type the following command after the prompt:
`ipconfig /all`
4. The output if the program will be shown in the command line window. This gives the information you need, as described below.

The following information is can be determined from the program output.

```

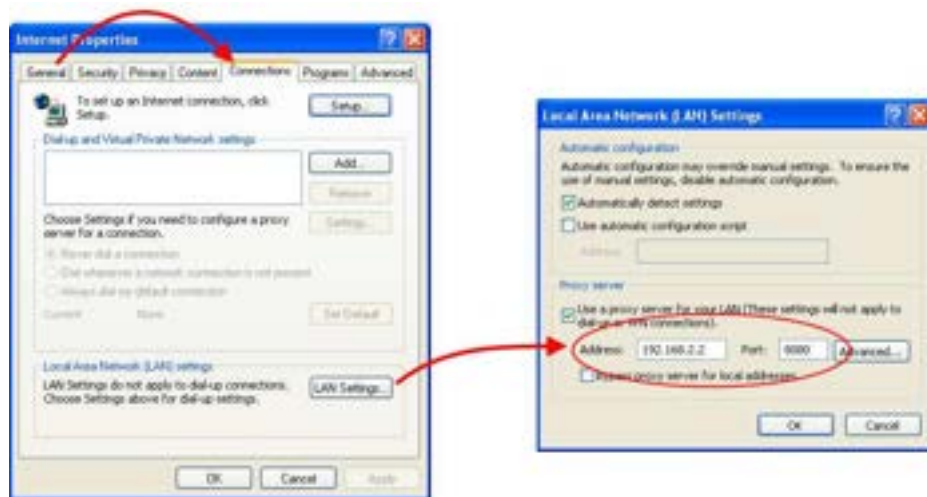
Description . . . . . : AMD PCNet Adapter
Physical Address . . . . : 08-0C-29-D6-52-B4
Dhcp Enabled. . . . . : Yes
Automatic Configuration Enabled . . . . : Yes
IP Address . . . . . : 192.168.228.2
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . : 192.168.228.2
DHCP Server . . . . . : 192.168.228.254
DNS Servers . . . . . : 192.168.228.2
Telemetry DNS Server . . : 192.168.228.2
  
```

1. If **DHCP Enabled** is shown as “Yes”, then the network supports DHCP, and the automatic procedure for allocating an IP address in section 4.1 can be used.
2. Here, the **Subnet mask** is shown. This is needed when you are configuring the IP address manually in section 6 -it must be entered during step (2) “Enter the meter’s Subnet Mask”.
3. Here, the **Default Gateway** is shown. This is needed when you are configuring the IP address manually in section 6. It must be entered during step (3) “Enter the Default Gateway address”. Note: Make sure you note the “IPv4 Default Gateway”.
4. Here, the **DNS Server** is shown. This is needed when you are configuring the IP address manually in section 6. It is the value that must be entered during step (4) “Enter the **DNS** server address”. Note: Make sure you note the “IPv4 DNS Server”.

5. 7.2.1 Basic Network Settings



1. From the task bar, open the Control Panel
2. In the Control Panel, click on “Network and Internet Connections” link.
3. Then click on the “Internet Options” link to open the pop-up dialog “Internet Options”.



4. Click on the “Connections” tab, and then on the button “LAN settings...” in this tab.
5. This will open up the dialog box “Local Area Network (LAN) Settings”. Here the lower section called “Proxy Server” contains the IP Address and Port Number for the proxy server, as shown in the diagram.
6. In the example, the proxy server has an IP Address of ‘192.168.2.2’ and a Port Number of ‘8080’.

8 Setting up Modem Connections

If you do not have access to an Ethernet connection, then PostBase can be configured to use a modem connection. In this case the PostBase USB modem must be used. Connect the modem to the USB interface and telephone connection before proceeding. Then in the first step (see section 3 “First Steps: Type of connection, Ethernet or modem?”), select modem.

8.1 Direct Line

Next you will be asked to confirm the type of telephone line: Direct or Extension.

If you chose Direct Line, then that is all the information that is needed. You will be shown the confirmation screen and PostBase will attempt to make a connection.

8.2 Extension lines: Hook Flash or Exchange Digit

If you have chosen an extension line above, then you will next need to configure the way in which the modem obtains an outside line. There are two ways the modem uses an electrical signal (‘hook flash’) or where the modem dials a special exchange digit (e.g. a ‘9’).

If the method is hook flash, then you will have entered all that is needed and will be shown the confirmation screen. The PostBase will then attempt to make a connection.

8.3 Extension Lines: Setting the dialed code

In systems where an exchange digit is used to get an extension line, the dialed digit(s) must be entered. This may be a simple digit, for example, '9' or a more complicated code.

Enter the code using the numeric keypad. Sometimes there must a pause or wait period after the code has been entered to allow the telephone system to receive the dialing tone from the outside line. You can enter such a pause use the 'P/W' key.

If you make a mistake, use the CE (bottom right key) to successively correct the last entries.

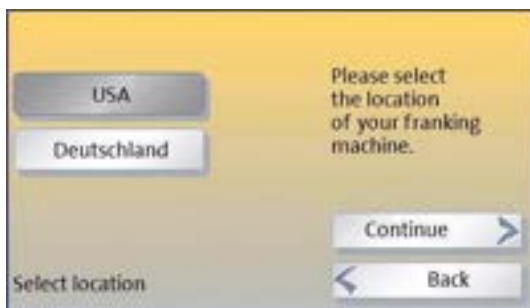
That is all the information that is needed. You will be shown the confirmation screen and PostBase will attempt to make a connection.

8.4 Final steps

After you touch 'Save' the PostBase will test the connection.

If it can't connect, the wizard will return to its starting point. In this case, you should first check the connections, then the settings you have entered.

- **If all goes well, PostBase will now continue with the remainder of its configuration...**



Note that you will next be asked to confirm the country in which the meter is located -this is needed so that the correct telephone number can be used.

9 Referenced Terms and FAQ

DHCP

Dynamic Host Configuration Protocol (DHCP) allows the automatic allocation of an 'IP address' for the device within your network by your router or network server. Using DHCP makes the configuration process much simpler.

IP address

Every computer or device that communicates over the Internet must have an IP (Internet Protocol) address. This also applies to most of today's large networks within companies. Common IP addresses are written as 4 groups of 3 digits, separated by full stops e.g. 123.987.567.543.

Proxy Server

Proxy servers are used in most, larger organizations as a bridge between their internal networks and the Internet. It can protect the computers in the internal network against attack from the wider Internet.

Subnet Mask

A network infrastructure in any organization will usually be split up into 'subnets' that connect associated groups of users. In this case the full IP address can be seen as having two parts -a prefix that identifies the subnet and the remainder that identifies a device in the subnet. The subnet mask shows how much of the IP address is formed by the prefix and how much by the rest. A typical subnet mask might look like '255.255.127.000'.

Default Gateway

Where an organization's network is split into a number of subnets, then the 'gateway' is the device that allows the traffic to flow out of the subnet and into the organization's wider network infrastructure -including other subnets and to the Internet (in this case, often through a proxy server). This default gateway will also have an IP address.

DNS server

We usually refer to websites by their web-address or 'URL', for example www.fp-usa.com. In fact though these are just labels and actually computers just use IP addresses. The Domain Name System refers to a special type of computer server that translates web addresses into IP addresses. Hence a DNS server would return 80.67.28.145 when asked for the address of www.francotyp.com.

Proxy Authentication

Often a proxy server needs to know who is talking to it -to confirm that it is a known user of the organization's network who is authorized to have access to the Internet. Any device will then have to log-on to the proxy server with its own user name and password. This process is called 'authentication'.



10 Reference Information for Network Administrators

The following section summarizes the information that a system administrator may need about the FP Mailing Solutions PostBase postage machine.

The PostBase requires (preferably) an Ethernet connection, with a minimum of 10 Mbit/sec, in order to be able to download postal funds from a FP Mailing Solutions server. Ethernet cables of class CAT5E are recommended. For this it normally uses TCP/IP (v4 only) through an https connection using TLS v1.2 over port 443 (outbound). In certain cases it may also use an http connection over port 80 (outbound). These two ports must therefore be enabled in any firewall. It will attempt to make a connection.

The meter may be configured to use DHCP (default) or, alternatively, it may be configured to use a fixed IP address, in which case the IP address of the meter, subnet mask, gateway and DNS server information must be manually entered.

A proxy server may also be configured, in which case the IP address and port of the proxy will be needed. Proxy servers without authentication are supported, however the meter can also use 'basic' or 'digest' authentication methods (using a user name and password; the digest uses an MD5 checksum). NTLM is not supported as an authentication method.

The meter may also use a modem connection over a telephone line, however this mechanism is no longer recommended. In this case a 56,000 baud modem line is required.

10.1 Summary of Configured Connection

Use this form to record the settings you have used for your reference.

10.1.1 DHCP

DHCP	ENABLED / DISABLED
------	--------------------

10.1.2 Fixed IP Address (if DHCP not enabled)

Meter's IP Address	_____ . _____ . _____ . _____
Subnet Mask	_____ . _____ . _____ . _____
IP Address of Standard Gateway	_____ . _____ . _____ . _____
IP Address of DNS Server	_____ . _____ . _____ . _____

10.1.3 Proxy Server

Proxy Server used	YES / NO
Proxy Server IP Address	_____ . _____ . _____ . _____
Port Number	_____
User Name	_____