SNAP Printer Web Server Users Manual

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Version 1.2

Change List

Version	Description
1.0	Initial Release
1.1	Updated to add the Batch ID and Batch Count to the main window. Added Reset Counter button to the Configure Screen and added description Removed reference to the Show Files button not working.
1.2	Correct grammatical and spelling errors

Overview

The SNAP Printer Web Server provides the ability to set up the printer for an Ethernet connection, view and change the printer settings remotely over a network, and upgrade the printer remotely over a network.

The printer has the capability of obtaining a network (IP) address via DHCP. The operator can then print a test label to determine the IP address, and access the printer's web server via a browser on any computer connected to the network. The operator can then change the printer's IP address to a static address. Setting a static address ensures that the printer is always at the same address. DHCP addresses are temporary and can change over time.

Once an IP address has been set up, the operator can then view and change the printer settings through the web server using a browser on any computer on the network. Most of the functionality of the VCP in PCMate is available through the web server.

In conjunction with an ftp client application, the operator can transfer a firmware upgrade file to the printer and upgrade the printer firmware remotely over the network.

IP Addresses

Every device on a network has an address, called its IP (Internet Protocol) Address. This address allows the network to identify each device and direct information to the correct devices.

Each network has a specific range of addresses that is valid for that network. A device that is configured for one network will generally not work on another network, because its IP address is not in the network's valid range.

IP Addresses can be static or dynamic. Static addresses never change, and are used for devices that must remain at the same address, such as printers and other peripheral devices. Dynamic addresses are assigned to a device temporarily and can change.

In order to connect new devices to the network, a Dynamic Host Configuration Protocol (DHCP) is used. DHCP recognizes when a new device is attached to the network and assigns an address to the new device from a pool of addresses that are allocated for DHCP. A dynamic address assigned by DHCP is called the device's DHCP address.

For a device that requires a static address, the Network Administrator must allocate a specific address to ensure that no other devices on the network use the same address. In order to work properly, the Network Administrator must assign a static address and the device must be set to use that static address.

Setting the Printer IP Address

Following is an overview of the process of attaching a SNAP printer to the network. Detailed instructions for each step are in the following sections.

1. Contact your Network Administrator to obtain a static IP address.
2. When the printer is first received, it will be in DHCP mode. When the printer is attached to the network, it will obtain a DHCP address from the network.
3. To determine what the DHCP address is, you can print a Network ID Test Label that will contain the DHCP address.
4. Using a browser such as Internet Explorer, you can access the printer's web server using the DHCP address
5. You will then enter the static IP address that you obtained from your network administrator.
6. You can then access the printer's web server from the new static IP address.

The printer comes from the factory in DHCP mode. Once a static address is set, the printer retains that address even if the printer is moved. Before moving the printer to another network, it must be set back to DHCP mode. See the section "Resetting the Printer to DHCP Mode" for instructions.

If the printer is not set to DHCP mode before moving it to another network, it will not work. If you connect a printer to your network and the address shown on the Network ID Test Label is not a valid address for the network, this may be the problem. See Appendix A for instructions on resetting the printer to DHCP mode after it has been moved to a new network

Obtaining a DHCP Address

The printer comes from the factory in DHCP mode. Simply connect your network cable to the Ethernet connector on the Network Interface Card installed in the printer and then turn the printer on.

There are two Ethernet connectors on the back of the printer. One is on the motherboard, and one is on the Network Interface Card installed in the printer. Do not use the connector on the motherboard.

You must have a Network Interface Card option installed in the printer. Contact Avery Dennison Customer Service to purchase this option.
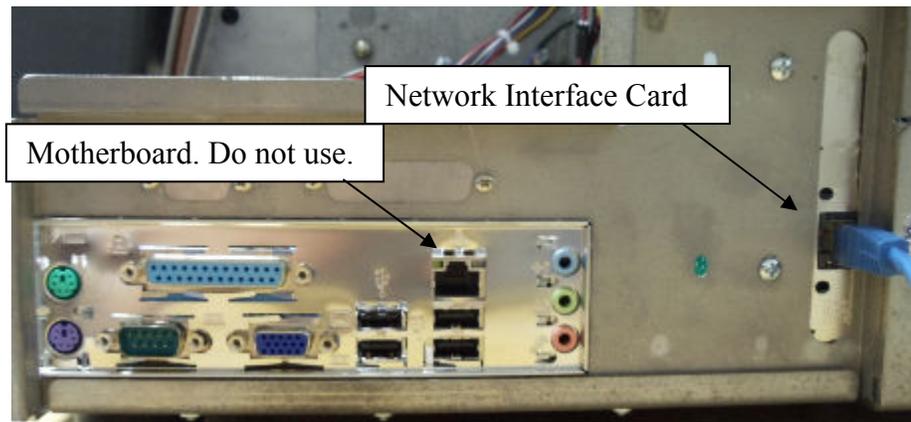
Because the DHCP process may take some time, wait at least 1 minute after the printer finishes its initialization (Ready light is on steady) before continuing.

Determining the DHCP Address

To find out the DHCP address that was assigned to the printer, you can print out the Network ID Test Label. Load the printer with stock and ink and then follow this procedure.

1. Press and hold the Voice button until the printer says "Press Start to print test patterns"
2. Press the Start button. The printer will say "Press Start to print narrow setup test pattern".
3. Press the Voice button. The printer will say "Press Start to print wide setup test pattern."
4. Press the Voice button. The printer will say "Press Start to print Custom Test Pattern One."
5. Press the Start button. The printer will say "Ready to print Custom Test Pattern One. Returning to print mode."
6. The Data light will come on. Press Start to begin printing the Network ID Test Pattern.
7. The Network ID Test Pattern label will have the temporary IP address printed on it, see the picture below. If there is no IP address, there may be a problem with your network connection. Check the connection and try again. If you can't resolve the problem, contact your Network Administrator.

<div style="border:1px solid">

**SNAP Printer
Configuration**

Model:	700
SW Version	3.28.16.02
IP Address	172.18.1.193

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If no IP address prints on the Network ID Test Label, the printer may not have completed the DHCP process. Wait a few minutes and try again.

If there is still a problem, make sure the network cable is connected properly (see the picture, above) and check the other network connections.

If you still can't obtain a DHCP address, try resetting the printer to DHCP mode as described in Appendix A.

Finally, set the static IP address manually and test the network connection as described in Appendix B.

Converting the DHCP Address to a Static Address

Once you know the DHCP address, open a browser (Internet Explorer, Firefox, etc.) on any computer connected to the network. In the address bar, enter the DHCP address and press Enter. The following window will appear.

Click on the Network button. The following window will appear.

Note that the DHCP address is shown in the IP Address box and the mode is DHCP.

Enter the static IP address in the IP Address box and click the "Submit as Static address" button.

> At this time, the IP address is set to the static address. The web server will no longer be available.
>
> Enter the static address in the Browser's address bar and press Enter to access the web server at the new address.

Resetting the Printer to DHCP Mode

Before moving the printer to a new network, you must reset the printer to DHCP mode. Otherwise, the automatic connection through DHCP to the new network will not work.

> See Appendix A for instructions for recovering a printer that was not reset to DHCP mode before connecting to a new network.

Access the web browser as described above, and click the Network button. The window shown above on page 7 will appear. Click the Reset to DHCP Address button.

Viewing and Changing the Printer Settings

Access the web server by opening a browser on any computer connected to the network. Enter the printer's IP address in the address bar and press Enter. The following window will appear:

The values shown are the current printer settings. To change the settings, click the Configure button. The following window will appear.

Clicking the Go Back button will return to the previous window without making any changes.

To change any setting, enter the value in the box or select a value from the drop down list. Click on Apply Changes to change the printer settings. Values that are grayed out are not changeable.

Clicking on the Reset Counter button will reset the Total Labels count to 0. The Life Counter and Total Inches are not resettable.

Upgrading the Printer Through the Web Server

Refer to the "SNAP Printer Upgrade Through the Web Server" manual for instructions on how to upgrade the printer through the Web Server.

Appendix A – Resetting the Printer to DHCP Mode

If the printer is moved to another network without being set to DHCP mode, you will need to follow this procedure.

1. Turn off the printer, and connect a standard computer monitor to the printer's video port, and a standard PS2 keyboard to the printer's keyboard port.
2. Turn on the printer. During the initialization, the prompt "Press F1 to enter Setup" will appear on the monitor. You have about a second to press the F1 key.
3. A window will appear on the monitor asking for a password. Type "IP" and press Enter.
4. A list of commands will appear. You can refresh the list at any time by typing HELP.
5. Each command can be used to view or set the associated parameter. If you enter the command with no data and press the Enter key, the current setting will be shown. To change the setting, enter the command and the new setting and press the Enter key.
6. To see if TCPIP is enabled, type TCPIP and press the Enter key. If TCPIP is disabled, type TCPIP ENABLE and press Enter.
7. Type IP and press Enter to see the printer's IP address. To set the printer to DHCP mode, type IP 0.0.0.0 and press Enter. (At this point, if you know the static IP address, enter it to bypass the DHCP process.)
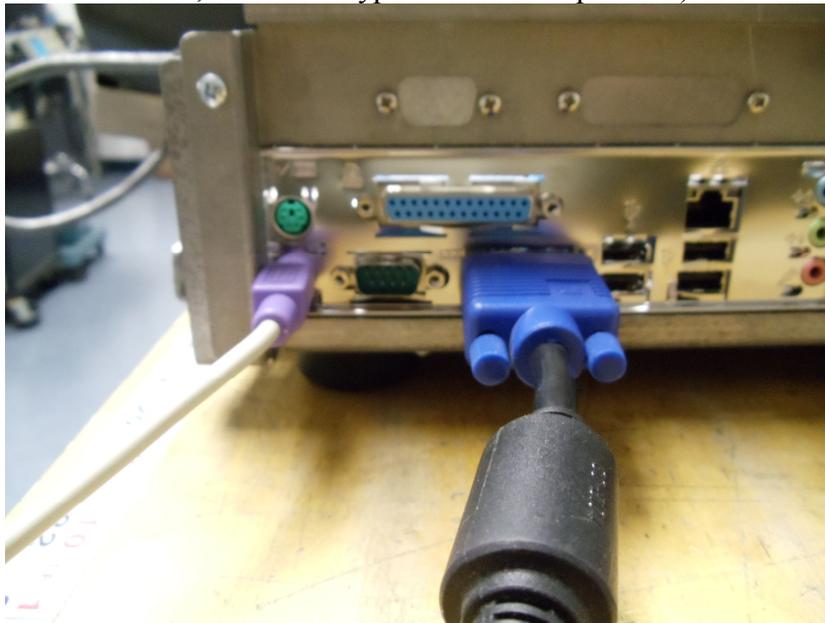
Appendix B – Troubleshooting the Network Connection

If you cannot get the Web Server working, the following procedure can be used to troubleshoot the network connection and printer setup. To perform this procedure, you will need a valid IP address for your network. You can obtain the address from your network administrator.

1. Turn the printer off and connect a standard computer monitor and keyboard as described in Appendix A.
2. Turn the printer on. When the prompt "Press F1 to enter setup" appears, press the F1 key on the keyboard. You have about a second to do this.
3. A window will appear asking for a password. Type IP and press the Enter key.
4. A list of commands will appear. You can refresh the list at any time by entering a ? (question mark).
5. Each command can be used to view or set the associated parameter. If you enter the command with no data and press the Enter key, the current setting will be shown. To change the setting, enter the command and the new setting and press the Enter key.
6. Check to make sure TCPIP is enabled. Type TCPIP and press the Enter key. If TCPIP is disabled, enter TCPIP ENABLE and press the Enter key.
7. Enter the IP address you obtained from your network administrator by typing IP followed by the address, the press the Enter key. For example, "IP 198.1.63.123".
8. Type Exit and press the Enter key. Wait for the printer to complete its initialization.
9. On a computer on the network, start a Command Prompt window by clicking Start – Run and entering "cmd" in the box, then click the OK button.
10. Test the printer connection by pinging the ID address that you set in the printer. At the command prompt enter "ping" followed by the IP address. For example, type "ping 198.1.63.123". Press Enter.
11. The ping command will try to contact the printer four times. If there is a problem with the connection, the result will be "Request timed out" (see below.
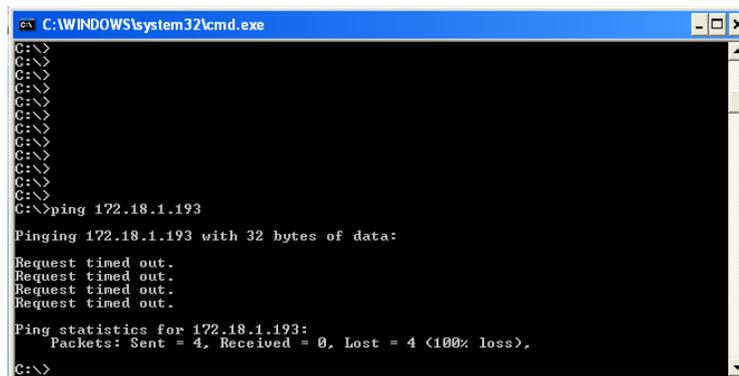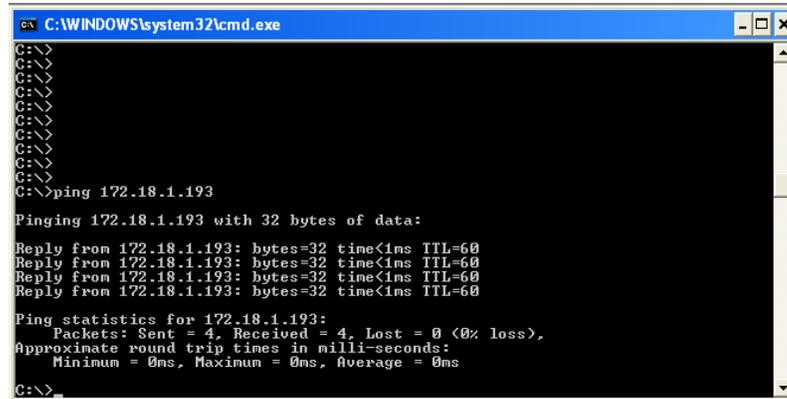
This indicates that there is some problem with the connection between the network and the printer. The most common problems are:
- Network cable plugged into the wrong connector on the printer
- Incorrect IP address set in printer or used in test
- Network source not connected
- Defective or mis-wired network cable
- Defective Network Interface Card in printer

A successful ping will display as follows: