The contents of this manual may be revised without prior notice and without obligation to incorporate changes and improvements into units already shipped.

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Adapter Setup

Introduction

Thank you for buying this internal network adapter. This guide shows you how to connect the internal adapter to your printer and to your LAN environment. The following illustration is one setup example:

Just follow the instructions in Steps 1 through 12, and you’ll be ready to use your adapter.

Step 1: Unpack the box

You will find the following items inside the box:
Step 2: Look at the back of the adapter

You’ll see three indicator lights on the adapter:

- **S(Status)** The status light:
  - is on when the adapter is idle.
  - is off when the adapter is reset.
  - is blinking when the flash code on the adapter is being updated, or when an error has occurred.

- **T(Test)** This light blinks when the adapter is in test mode

- **D(Data)** This light blinks when data is being sent or received.

You will also see two push-button switches (TEST and SE), described in the following table:

<table>
<thead>
<tr>
<th>Button or switch</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE Button</td>
<td>You won’t need to press the SE button during setup. This is used by the Service Engineer.</td>
</tr>
<tr>
<td>TEST Button</td>
<td>Used to send a setup page to the printer after setup.</td>
</tr>
</tbody>
</table>

You will also see network connectors.
One of the network connectors of the adapter should match your network cable. If they don’t match, contact your point of purchase.
Step 3: Prepare the printer

Check the following:

- Make sure no print jobs are going to the printer that is being connected to the adapter.
- Make sure the printer is off.
- Make sure the printer power cord is unplugged from the electrical outlet.

Step 4: Install the adapter to the printer

See your Printer Manual.

Step 5: Connect to the Ethernet Port

The Ethernet interface board of your printer has two connectors, 10BASE-2 and 10BASE-T. The 10BASE-2 connector is for a coaxial cable, bus connection. The 10BASE-T connector is for a twisted-pair cable, star connection. Either will do.

Connecting to the Ethernet port involves the following three tasks.

- Check the type of cables your network uses.
- Select the 10BASE-2 or 10BASE-T connector of the interface board according to the connector type of your cable.
- Connect the interface cable to the printer and a network port.

Step 6: Connect the Ethernet Interface Cable

To connect to the Ethernet interface port, you need a cable correctly wired for your network. The cable must also have the proper connectors. Your dealer or technical support person can supply you with the proper cable. For example, C66L-2810-0111 and C66L-1240-0002 are available for 10BASE-T and 10BASE-2 ports respectively. Also refer to your network documentation for the type of connector required by its Ethernet port.

Notice:

Make sure that the printer is turned off before connecting the interface cable. Do not touch any connector contacts to avoid possible electrostatic discharge damage to the printer. (Do not remove the connector cover on the 10BASE-2 port when you use the 10BASE-T port.)
Step 7: Select the Ethernet Interface

The 10BASE-T port and its cable

To make the connection, firmly plug the cable connector into the Ethernet interface port on the Network Adapter which is located at the back right of the printer. The phrase “10BASE-T” is inscribed near this port. Plug the connector at the other end of the cable into the network’s Ethernet port. Consult your network documentation if you need help. For safety reasons, confirm that you have selected an Ethernet 10BASE-T port and NOT a similar appearing telephone network jack.

The 10BASE-2 coaxial cable and T-connector

To make the connection, firmly plug the cable connector into the Ethernet interface port on the Network Adapter which is located at the back right of the printer. The phrase “10BASE-2” is inscribed near this port. Plug the connector at the other end of the coaxial cable into the network’s Ethernet port. Consult your network documentation if you need help.

Step 8: Check the Ethernet Specifications

The printer’s standard interface is parallel. While the Ethernet interface board is installed, the printer automatically understands whether the computer selects the printer through the Ethernet interface.

The table below shows the physical specifications of the Ethernet interface. Make sure you respectively reach them.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The span of 10BASE-2</td>
<td>Max. 185 meters (coaxial, bus connection)</td>
</tr>
<tr>
<td>The span of 10BASE-T</td>
<td>Max. 100 meters (twisted-pair, star connection)</td>
</tr>
<tr>
<td>Speed of data transmission</td>
<td>10M bits/second</td>
</tr>
</tbody>
</table>
Step 9: Power up!

1. Plug the power cord into the electrical outlet.

2. Turn on the printer.

   Each light patterns indicate that the adapter has completed a self-test. The following patterns show up:

<table>
<thead>
<tr>
<th>T(Test)</th>
<th>S(Status)</th>
<th>D(Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>off</td>
<td>off</td>
<td>off</td>
</tr>
<tr>
<td>on</td>
<td>on</td>
<td>on</td>
</tr>
<tr>
<td>on</td>
<td>off</td>
<td>off</td>
</tr>
<tr>
<td>off</td>
<td>off</td>
<td>on</td>
</tr>
<tr>
<td>off</td>
<td>off</td>
<td>off</td>
</tr>
<tr>
<td>off</td>
<td>on</td>
<td>off</td>
</tr>
</tbody>
</table>

3. After the lights have stabilized, continue with Step 10.

   If any of the first five light patterns listed above persist in staying on, make a note of the light patterns and contact your service person.
Step 10: Verify the Connections

To be sure you’ve connected the adapter properly, you’ll need to check the lights and print a setup page.

1. Check the lights on the adapter.
   
   If the S(Status) light is on, and the T(Test) and D(Data) lights are off, you have connected the adapter to the network properly. Continue with item number 2 on page 1-8.

   ![Diagram of lights and buttons]

   If the lights do not come on as described, check the following items:

   - Repeat Steps 3 through 9 in this manual.
   - Check whether the connectors are properly connected.
   - In the following table, find the sequence of lights occurring on your adapter, then follow the action described. If you need to call for service, make a note of the light pattern before you call.
### LED Pattern Descriptions

<table>
<thead>
<tr>
<th>T(Test)</th>
<th>S(Status)</th>
<th>D(Data)</th>
<th>Description/Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>off</td>
<td>on</td>
<td>off</td>
<td>Ready. (Idle.)</td>
</tr>
<tr>
<td>off</td>
<td>on</td>
<td>blinking</td>
<td>Processing. Normal Operation. Data is being received from a host.</td>
</tr>
<tr>
<td>on</td>
<td>off</td>
<td>off</td>
<td>Testing. The <em>first</em> light pattern indicates that you have pressed the Test button. The <em>second</em> light pattern indicates that a setup page is being sent from the Network Adapter to the printer.</td>
</tr>
<tr>
<td>off</td>
<td>on</td>
<td>blinking</td>
<td>Updating flash code. The first light pattern indicates that the flash code is being downloaded to the Network Adapter. The second light pattern occurs while the Network Adapter is updating the flash code. Do not turn off the printer. After the Network Adapter goes through its normal start-up tests, it returns to its Ready state.</td>
</tr>
<tr>
<td>off</td>
<td>blinking</td>
<td>on</td>
<td>Network error. Check all connections to the network.</td>
</tr>
<tr>
<td>off</td>
<td>blinking</td>
<td>off</td>
<td>Software error. Power the printer off and back on.</td>
</tr>
<tr>
<td>off</td>
<td>off</td>
<td>blinking</td>
<td>Flash error.</td>
</tr>
</tbody>
</table>
2. **Press the TEST button on the adapter. Hold it down until the T(Test) light comes on.**
   
   This sends a setup page to the printer.

   ![Type 1](image1.png) ![Type 2](image2.png)

   This step tests the connections between the adapter and the printer. If the connections are good, the printer prints a setup page.

   The D(Data) light on the adapter blinks until the setup page is printed.

3. **Look at the setup page. It should look similar to the one on page 1-9.** If the setup page does not print, check the following items:
   - Repeat steps 3 through 9 in this manual.
   - Check all connections to make sure they are completely connected.

4. **Save the setup page.**
   
   You may use the information printed on it when you configure the adapter.
**Step 11: Save this manual**

If the adapter needs service, the network system administrator or an authorized service person can refer to the service information beginning on page 2-1.

**Step 12: Configure the adapter**

*Congratulations!* You’ve connected the internal network adapter to your printer and to the network.

Next, you need to configure the adapter for your network. To do so, go to the *PagePrinter Network Adapter: Utilities & Environments* manual. This manual contains sections that tell you how to use the *Network Printer Utility* diskettes (CD-ROM) to configure the adapter for your network environments.

---

**Setup page:**

<table>
<thead>
<tr>
<th>Network Card</th>
<th>Ethernet</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOJ Timeout</td>
<td>90</td>
</tr>
<tr>
<td>UAA</td>
<td>00200008A80A 0004001015C0</td>
</tr>
<tr>
<td>LAA</td>
<td>000000000000 000000000000</td>
</tr>
<tr>
<td>Part Number, EC</td>
<td>1381603, MN_XL_E</td>
</tr>
<tr>
<td>Firmware Revision</td>
<td>4.124.1</td>
</tr>
</tbody>
</table>

**LPT 1**

- NPAP Active, NPAP Mode: Yes, Auto
- Busy Timeout: 90
- Printer Type, Port Type: PP14, Enhanced

**LexLink (Active)**

- Nickname: 00200008A803

**NetWare (Active)**

- Login Name: !LEX00200008A803
- NetWare Mode: PSERVER

**IP (Active)**

- BOOTP & RARP Enabled: No
- Address: 157.184.8.86
- Netmask: 255.255.255.0
- Gateway: 157.184.8.30
Step 12: Configure the adapter
Service

Introduction

The information in this section of the guide is for authorized service personnel or network system administrators only. See the Adapter Setup chapter of this manual for basic connection instructions.

The network adapter provides an internal LAN connection, connecting a printer directly to a LAN. The product includes utilities which run on the print server.

These instructions will work for the Network Adapter.

Service strategy

• If the adapter only has microcode problems, advise the customer to obtain the updated flash code from the vendor.
• If the adapter is defective, replace it completely.

Basic function

The adapter has T(Test), S(Status), and D(Data) LEDs; SE and TEST buttons. The following table lists the meaning of each:

<table>
<thead>
<tr>
<th>Indicator or button</th>
<th>Function or status</th>
</tr>
</thead>
<tbody>
<tr>
<td>T(Test) LED</td>
<td>ON while Test button is pressed, blinks during Test Mode</td>
</tr>
<tr>
<td>S(Status) LED</td>
<td>ON while in Idle Mode, OFF during most of POR or Reset, blinks when the flash code is being updated or when an error is detected</td>
</tr>
<tr>
<td>D(Data) LED</td>
<td>Blinks while data is being sent or received</td>
</tr>
<tr>
<td>SE button</td>
<td>Used by the Service Engineer for special functions</td>
</tr>
<tr>
<td>TEST button</td>
<td>Causes a test file to be sent to the printer</td>
</tr>
</tbody>
</table>
Problem determination

The following tests describe what might be wrong if an error occurs and what action to take using the SE menu.

How to enter the SE Menu

The SE button is used by the Service Engineer to test the adapter. Enter the test by following the procedure below.
1) Hold down the TEST button.
2) When the T(Test) LED comes on, press the SE button.
3) Release the TEST button, but continue to hold the SE button.
4) The LED’s will count from 7 to 0 in binary. When you get to the function you want, release the SE button. The operation will be activated.

This procedure causes an immediate POR of the adapter, and will activate one of the functions listed below.

Note 1:
If the SE button is held down while the printer is being powered up, the adapter will link to the 10 BASE-2 port.

The following are the SE Menu Functions:

<table>
<thead>
<tr>
<th>T(Test)</th>
<th>S(Status)</th>
<th>D(Data)</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>on</td>
<td>on</td>
<td>on</td>
<td>Error Summary</td>
</tr>
<tr>
<td>on</td>
<td>on</td>
<td>off</td>
<td>Process Table</td>
</tr>
<tr>
<td>off</td>
<td>on</td>
<td>on</td>
<td>Print NVRAM</td>
</tr>
<tr>
<td>off</td>
<td>on</td>
<td>off</td>
<td>Toggle between TCP/IP Ethernet 802.3 and DIX</td>
</tr>
<tr>
<td>on</td>
<td>off</td>
<td>on</td>
<td>Toggle: Always insert form feed after job</td>
</tr>
<tr>
<td>on</td>
<td>off</td>
<td>off</td>
<td>Erase NVRAM *NOTE 2</td>
</tr>
<tr>
<td>off</td>
<td>off</td>
<td>on</td>
<td>No function</td>
</tr>
<tr>
<td>off</td>
<td>off</td>
<td>off</td>
<td>Print SE Menu</td>
</tr>
</tbody>
</table>

Note 2:
If “Erase NVRAM” operation is activated, all the settings you have set are replaced by the default values.
Operating errors

The S(Status) LED blinks to indicate that an internal error was detected after Reset. The T(Test) and D(Data) LEDs provide information on the type of error detected:

<table>
<thead>
<tr>
<th>T(Test)</th>
<th>S(Status)</th>
<th>D(Data)</th>
<th>Error type</th>
</tr>
</thead>
<tbody>
<tr>
<td>off</td>
<td>blink</td>
<td>on</td>
<td>Network (no connection, etc.)</td>
</tr>
<tr>
<td>off</td>
<td>blink</td>
<td>off</td>
<td>Software</td>
</tr>
<tr>
<td>on</td>
<td>blink</td>
<td>on</td>
<td>Flash failure</td>
</tr>
</tbody>
</table>

Note:
If you are updating the flash code, the T(Test), S(Status), and D(Data) lights will blink. This is the normal process and does not indicate an error.

Did the adapter indicate a software error?

Yes

No

Continue with “Sample print test” on page 2-4.

Contact your next level of support.
Sample print test

This test confirms that the adapter, the printer cable, and the printer are correctly connected and communicating correctly with each other. Hold down the TEST button until the T(Test) LED comes on to send a single-page file to the printer. The adapter returns to Idle Mode when the test is complete.

Did the sample print test pass?

Yes

No

Contact your next level of support.

Continue with the steps in the “LAN connection test” on page 2-5.
LAN connection test

1 For Ethernet 10BASE-T: There is no LAN connection test for 10BASE-T. Check the LAN cable to the adapter for continuity and proper connection. Then see “Printer and LAN checks” on page 2-6.

For Ethernet 10BASE-2: Attach a 50 ohm BNC terminator cap to each end of the T-connector. (The customer may be able to supply these caps.)

2 Turn on the printer.

If no problem is found, the adapter will go through its Reset cycle and enter Idle Mode with only the Status LED on. If there is a problem with the network connection, the adapter will go through Reset and then display a network error (see “Operating errors” on page 2-3). See “LAN checks” on page 2-6.

Did the LAN connection test pass?

Yes

No

Refer to “LAN checks” on page 2-6.

No problem has been found with the adapter.

Note:

If the adapter is replaced, the customer must use the Network Printer Utilities to delete all associations before removing the adapter from the LAN. When a replacement adapter is connected to the LAN, the customer must then perform the configuration steps and establish new associations. Refer to the appropriate section of the PagePrinter Network Adapter: Utilities & Environments.
If the adapter checks out successfully, the problem may be with other hardware or software on the network. The following are suggestions to the customer for checking hardware and software for possible problems.

**Printer checks**

- Make sure the printer is operating correctly by running printer diagnostics and the printer wrap test.
- Make sure the printer is queued and the printer driver is configured properly.

**LAN checks**

- Make sure the software utility has been correctly installed.
- Make sure the LAN cable and LAN connections are good.
- Make sure a single route broadcast is supported across the network bridges, if a bridge is used.
- Make sure the server is working properly. Review print server installation and configuration using the appropriate system guide to operation.
Notices

Emission notices

Consult the following list for any emission notices that may apply in your country.

For USA:

Federal communications commission (FCC) statement

Federal Communications Commission
Radio Frequency Interference Statement for United States Users
NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

(This equipment has been tested as M3878SA14AV of the model number.)

Notes:
1. The use of a non-shielded interface cable with the referenced device is prohibited. The length of the parallel interface cable must be 3 meters (10 feet) or less. The length of the serial interface cable must be 15 meters (50 feet) or less.
2. The length of the power cord must be 3 meters (10 feet) or less.

Notice to European Users

This is a Class A product. If the Network Adapter or the network cable are not properly installed, it may cause radio interference in which case the user may be required to take adequate measures.