



LANClient Control Manager

G05L-1904-1

**Training and Procedures Guide  
Supplement for IBM ThinkPads**

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**Note**

Before using this information and the product it supports, be sure to read the information in Appendix A, “Notices and Trademarks” on page 7.

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# About This Supplement

This document supplements the information in the LANClient Control Manager *Training and Procedures Guides*. It provides important information about using an IBM ThinkPad system with IBM LANClient Control Manager (LCCM). Read this supplement in its entirety before attempting to use a ThinkPad as a client workstation.

Topics in this supplement include:

- Minimum Requirements
- LCCM Supported ThinkPad Systems
- LCCM Functions Not Supported on ThinkPads
- Terminology Used by LCCM
- Setting up a ThinkPad as an LCCM Client





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# Chapter 1. Minimum Requirements

This section describes the minimum hardware and software requirements to use LCCM, version 2.5, with supported ThinkPad models.

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## LCCM Supported ThinkPad Systems

The following ThinkPads (with model numbers) have been tested and are supported by LCCM, version 2.5:

380Z (2635)	390 (2626)	560Z (2640)
600 (2645)	600E (2645)	700 (9548/9549)
700E (9549)	700X (9549)	

## Limitations of ThinkPads with LCCM

### ThinkPad 390

You cannot use LCCM to set, change, or delete a BIOS administrator password over the network for the ThinkPad 390. If you attempt to do so, you will receive an error message in the LCCM Progress and Errors window.

LCCM does not support updating the CMOS settings on ThinkPad 390 models. When LCCM detects that the client is a ThinkPad 390, the Update CMOS check box on the Maintenance page of the Individual Client Details notebook is not a selectable field.

### Microsoft Windows 95 and Windows 98

LCCM does not support the OS Install Profile (Unattended installation) of a Windows 95/98 image on a ThinkPad using either the IBM Turbo 16/4 Token-Ring PC Card or IBM Auto 16/4 Token-Ring Credit Card Adapter. You may clone a Windows 95/98 image from and to a ThinkPad using these network adapters, however.

A Windows NT (workstation or server) OS Install Profile is supported with these network adapters.

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## Networking Requirements

LCCM supports a wide range of ThinkPads with networking features. A ThinkPad must use one of the four LCCM supported network enablements. The four selections are:

- Docking Station
- Port Replicator
- PC Card Enabler
- PC Card/Credit Card

### Docking Station Requirements

You can use ThinkPads 600, 600E, 770, 770E and 770X with LCCM in a SelectaDock III docking station that contains a supported network adapter. You cannot use earlier versions of the docking station.

At the time this document was written, the following are the supported network adapters:

- IBM Auto Wake Token-Ring ISA Adapter

- IBM PCI Token-Ring with Wake on LAN
- IBM 100/10 EtherJet PCI Adapter with Wake on LAN

## Port Replicator Requirements

LCCM supports ThinkPads 380Z, 390, and 560Z attached to a Port Replicator with the Advanced EtherJet Feature.

## PC Card Enabler Requirements

The PC Card Enabler, with the Advanced EtherJet Feature, snaps on to an IBM SelectaBase, enabling ThinkPads 600, 600E, 770, 770E and 770X systems to be supported with LCCM.

## PC Card / Credit Card

You can use all LCCM supported ThinkPads with a PC Card/Credit Card. At the time this document was written, the following are the supported PC Cards/Credit Cards:

- IBM Turbo 16/4 Token-Ring PC Card
- IBM Auto Token-Ring Credit Card

LCCM does not support an unattended installation of Windows 95/98 with these two adapters at this time. However, you may clone a Windows 95/98 image with these adapters.

For the latest list of supported adapters, see the LCCM Compatibility and Configuration Guide. You can access the guide through the LCCM World Wide Web site at:

<http://www.pc.ibm.com/us/desktop/lccm/index.html>

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## Terminology Used by LCCM

The following are terms used in the LCCM documentation for which the ThinkPad uses different terms.

**BIOS Flash Diskette or Flash BIOS Update Diskette:** This is the "ThinkPad System Program Service Diskette." The "ThinkPad System Program Service Diskette" is not provided with the ThinkPad models nor can you create it from the Diskette Factory. As updated versions of BIOS are developed, this diskette will be made available from the ThinkPad World Wide Web site at:

[http://www.us.pc.ibm.com/support/thinkpad/thinkpad\\_support.html](http://www.us.pc.ibm.com/support/thinkpad/thinkpad_support.html)

For information about creating a BIOS image and updating BIOS, see the *Training and Procedures Guide*

**Configuration/Setup Utility:** This is the ThinkPad Easy-Setup program. To access the Easy-Setup program:

1. Shut down the operating system and power off the computer.
2. Power on the computer, then immediately press and hold the **F1** key.
3. When the Easy-Setup program screen appears, release the **F1** key.

**Automatic Power On sequence:** This is the Network power-on sequence that is set through the Easy-Setup program. If network sends a wake-up packet to start a ThinkPad that is currently powered off, the ThinkPad uses this sequence to determine where to look for an operating system.

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## Chapter 2. Setting Up a ThinkPad as an LCCM Client

The process of setting up a ThinkPad as an LCCM client is slightly different from the process documented in the LCCM documentation for standard desktop computers. In order to set up a ThinkPad, you must meet two conditions:

- The ThinkPad itself must be set up correctly. See “Setting Up the ThinkPad” on page 4 for details.
- A network connection must be enabled. Choose one of the following for your particular ThinkPad:
  - An IBM ThinkPad using a docking station must have a supported network adapter. See “Setting Up the Docking Station” for details.
  - An IBM ThinkPad using a Port Replicator or PC Card Enabler must have the latest adapter flash BIOS installed. The latest version is available from the World Wide Web at:  
<http://www.pc.ibm.com/us/thinkpad/index.html>
  - If you are using a PC Card/Credit Card for your network connection, remember that LCCM does not support the unattended installation of Windows 95/98.

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### Setting Up the Docking Station

Install the network adapter in the SelectaDock III docking station using the procedures in the SelectaDock users documentation.

- If you are installing an IBM 100/10 EtherJet PCI Adapter with Wake on LAN, no further configuration is required for this unit. Continue with “Setting Up the ThinkPad” on page 4.
- If you are installing an IBM Auto Wake Token-Ring ISA Adapter, you must use the LANAID program to configure the adapter. The LANAID program is shipped with the IBM Auto Wake Token Ring ISA Adapter. To configure the adapter,
  1. Insert the ThinkPad into the docking station.
  2. If LANAID is not already installed, follow the instructions provided with the adapter to install LANAID.
  3. Start the LANAID program.
  4. On the "Plug and Play" page of "Change Configuration Parameters" dialog, do the following:
    - a. Select "Manual configuration" instead of "Plug and Play automatic configuration."
    - b. Select "9" from "Interrupt" list box,

**Notes:**

- 1) DO NOT check the "Override BIOS" check box if it appears. If the adapter was previously configured using "Manual configuration," selecting interrupt 9 might cause a warning message to be displayed and the setting will be marked as "In Conflict." However, after you store the setting, turn off the ThinkPad, then turn it on again, the conflict will be resolved.
- 2) You can also configure the ThinkPad using LANAIDC. The latest version is available from the World Wide Web at:

<http://www.networking.ibm.com/nes/nestoken.htm>

To use LANAIDC:

- a) Start the LANAID diskette.
- b) At the LANAIDC> prompt, type  
`/CONFIG=LOCKED /INT=9`

Then, press **Enter**.

If the adapter is not configured correctly using this procedure, the following problems will occur:

- The Remote Program Load (RPL) function of a ThinkPad hangs if interrupt level 9 is not assigned to the adapter.
- When LCCM scans the ThinkPad, the Network Adapter type is shown as **Unknown** on the Hardware page of the Individual Client Details notebook if the BIOS Override box is checked during LANAID configuration, or if the adapter is configured as CONFIG=LEGACY using LANAIDC.

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## Setting Up the ThinkPad

To set up a ThinkPad for LCCM:

1. Make a note as to whether a Token-Ring or Ethernet adapter is installed in the ThinkPad or attached to it (docking station, replicator, or PC Card enabler). You will need this information later in this procedure.
2. Verify that all cables (power, network, and so on) are properly connected.
3. Turn on the ThinkPad and immediately press and hold the **F1** key. When the Easy-Setup main screen appears, release the **F1** key.
4. Click on the Start up icon. A screen appears with a Power-on icon and a Network icon.
5. Click on the Power-on icon.
6. Verify that the power-on startup sequence is in the following order:
  - Device 1: FDD-1
  - Device 2: Network
  - Device 3: HDD-1
  - Device 4: CDROM (optional)

**Note:** This is the order in which the computer looks for an operating system when it is started from the computer power switch.

If you need to change the power-on startup sequence, do the following:

- a. Click on the Reset icon. The four boxes at the top become empty.
  - b. Click on the FDD-1 icon.
  - c. Click on the Network icon. The Token Ring Screen appears.
    - If you are using a Token Ring adapter, click on the appropriate speed selection, then click on OK.
    - If you are using an Ethernet adapter, click on Cancel.
  - d. Click on the HDD-1 icon.
  - e. If you have a CD-ROM installed, click on the CDROM icon.
  - f. Click on **OK**.
7. Click on the Network icon.
8. Make sure the Enable Icon radio button is highlighted (dark).
9. Verify that the network startup sequence is in the following order:
- Device 1: Network
  - Device 2: FDD-1
  - Device 3: HDD-1
  - Device 4: CDROM (optional)

**Note:** This is the order in which the computer looks for an operating system when it is started remotely through the network using the Wake on LAN feature.

If you need to change the startup sequence, do the following:

- a. Click on the Reset icon. The four boxes at the top become empty.
  - b. Click on the Network icon. The Token Ring Screen appears.
    - If you are using a Token Ring adapter, click on the appropriate speed selection, then click on OK.
    - If you are using an Ethernet adapter, click on Cancel.
  - c. Click on the FDD-1 icon.
  - d. Click on the HDD-1 icon.
  - e. If you have a CD-ROM installed, click on the CDROM icon.
  - f. Click on **OK**.
  - g. Click on Exit. You are returned to the Easy-Setup main screen.
10. Set up the network configuration features:
- a. Click on the Config icon. The Configuration screen appears containing five icons.
  - b. Click on the Network icon. A screen appears that allows you enable or disable the Wake (Wake on LAN) feature and the Flash (Flash System BIOS) feature.
  - c. Click on the Enable Icon for Wake.
  - d. Click on the Enable icon for Flash.  
  
A Reminder: the ThinkPad 390 does not support Flash over LAN.
  - e. Click on **OK**. You are returned to the Configuration screen.

- f. Click on the Initialize icon. An OK screen appears.
  - g. Click on **OK**. You are returned to the Configuration screen.
  - h. Click on **Exit**. The Easy-Setup main screen appears.
11. Restart the computer:
- a. Click on the Restart icon. An OK screen appears.
  - b. Click on **OK**. The computer restarts and the RPL or PXE/DHCP screen appears.

This screen will continue to be displayed until one of the following occurs:

- LANClient Control Manager scans in the ThinkPad.
- The network adapter is removed from the ThinkPad or the ThinkPad is removed from the network attachment.

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# Appendix A. Notices and Trademarks

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