

## MPC-10 README

### Macsense MPC-10 Ethernet Card Driver Diskette (Ver 2.60) Overview

#### TOPIC

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#### [1] DISKETTE CONTENTS

| Files and Subdirectories | Contents                                                  |
|--------------------------|-----------------------------------------------------------|
| \MPC-10                  | Tag File                                                  |
| \PCMCARD.INF             | Windows 95 Installation File                              |
| \DIAG.EXE                | PCMCIA Card Diagnostic Program                            |
| \INSTALL.EXE             | PCMCIA Installation Program                               |
| \CARDGO.EXE              | PCMCIA Client Driver                                      |
| \README.TXT              | This file                                                 |
| \NETWARE.ODI             | Directory of Novell Netware DOS ODI Driver                |
| \PKTDRV                  | Directory of FTP Compliant Packet Driver Directory        |
| \OS2                     | Directory of NDIS V2.0 Driver for OS2 LAN Server          |
| \NDIS                    | Directory of NDIS V2.0 Driver                             |
| \WFW311                  | Directory of NDIS V2.0 Enhance Mode Driver for WFW311     |
| \MSLANMAN.DOS            | Directory of NDIS V2.0 Driver for Lan Manager V2.1        |
| \LANTASTI.V60            | Directory of NDIS V2.0 Driver for Lantastic V6.0          |
| \WIN9X                   | Directory of NDIS V3.1 Driver for Windows 95 and 98       |
| \WINNT                   | Directory of NDIS V3.1 Driver for Windows NT 3.51 and 4.0 |

#### [2] CLIENT DRIVER (For DOS and Windows 3.1 Only)

The CLIENT DRIVER is a PCMCIA controller enable program. This enable program only need for DOS and Windows 3.1 system. You should installed the Socket and Card service in your Notebook before executing the client driver. If you do not have the Socket or card service program, please call the Notebook vendor. The client driver will keep resident for handle card inseration and removal events. This feature can prevent system crash when remove the card from socket.

To load the client driver, type

```
CARDGO [/INT=x] [/PORT=xxx] [/MEM=xxxx] [/U] [/?]
```

in DOS command line, or

```
DEVICE=[PATHNAME] CARDGO.EXE [/INT=x] [/PORT=xxx] [/MEM=xxxx] [/U] [/?]
```

in config.sys file.

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where:

- [/INT=x] This specifies the hardware interrupt (IRQ) where your card will be indicated. The valid IRQs are 2, 3, 4, 5, 6, 10, 11, 12, 15.
- [/PORT=xxx] This specifies the I/O address. The valid ports are 240, 280, 300, 320, 340, 360.
- [/MEM=xxxx] This specifies the memory window address. The valid MEMs are D000, D400, D800, DC00.
- [/U] This specifies the client driver will free the resident program when the card is remove from socket.
- [/?] This specifies to indicate the program to display all the possible syntax only.

The default syntax is:

```
CARDGO /INT=5 /PORT=300 /MEM=D400
```

After you executed the CARDGO.EXE, you will see the following display for make sure install successful. Especially you must see the Node ID value.

```
Socket      : 0          (for example)
IRQ Number  : 05         (for example)
I/O PORT Base : 0300H   (for example)
Memory Address: D400H   (for example)
Node ID     : 00 A0 0C 80 00 02 (for example)
```

Here is the list of error messages the driver may display and correction method we suggested:

[Error 1]

```
"MPC-10 Ethernet Card Enabler Fail in Request IRQ. "
The IRQ number which you specified is not supported by the Card
Service or in conflict with other device.
(Correction:) To change the IRQ number to other valid value
list above.
```

[Error 2]

```
"MPC-10 Ethernet Card Enabler Fail in Request IO Port. "
The IO port which you specified is not supported by the Card Service or
in conflict with other device.
(Correction:) To change the IO port to other valid value list above.
```

[Error 3]

```
"MPC-10 Ethernet Card Enabler Fail in Request Memory Window. "
The memory window address which you specified is not supported by
the Card Service or in conflict with other device.
(Correction:) To change the memory window address to other valid
value list above.
```

[Error 4]

```
"MPC-10 Ethernet Card Enabler Fail in General Error. "
Register service fail with Card Service program
(Correction:) To reboot system and try again.
```

[Error 5]

```
"Card Service is not compliant with Version 2.10, 2.01 or 2.00 !"
(Correction:) To re-install a new Card Service.
```

[Error 6]

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"MPC-10 Ethernet Card is not Active ! Enable again. "  
May be the Ethernet controller malfunction.  
(Correction:) To contact with your dealer.

#### [Error 7]

"May be the Card Service version is too old. "  
"Please re-install new version of Card Service. "  
(Correction:) To re-install a new Socket and Card Services.

#### [Error 8]

"Parameter Too Long. "  
The Parameters of CARDGO is too long.  
(Correction:) To reference the default syntax list above and correct it.

#### [Error 9]

"Unknown Parameters. "  
Syntax error of CARDGO.EXE.  
(Correction:) To reference the default syntax list above and correct it.

#### [Error 10]

"Invalid Value !"  
An invalid parameter value.  
(Correction:) To reference the valid values list above and correct it.

#### [Warning 1]

"MPC-10 Ethernet Card Enabler had already been resident. "  
The CARDGO.EXE is executed.  
(Correction:) To reboot your system.

### [3] SOCKET and CARD SERVICES INSTALLATION ADVISORY

For those who installed EMM386.EXE in your config.sys, please exclude memory address D400-D7FF from your system. MPC-10 Ethernet Card Enabler program will use this space to read Ethernet ID and CIS from on-board serial EEPROM

#### [Example]

DEVICE=EMM386.EXE NOEMS X=D400-D7FF  
or  
DEVICE=EMM386.EXE NOEMS X=D000-DFFF

For those who installed Card and Socket Services device driver in your config.sys, please run CARDGO.EXE(see Client Driver) after those device drivers. The default configuration is INT=5, PORT=300 and MEM=D400.

#### [Phoenix PCMB+ V3.0]

DEVICE=C:\PCMB\CNFIGNAM.EXE /SETUP-DEFAULTS  
DEVICE=C:\PCMB\PCMSS.EXE  
DEVICE=C:\PCMB\PCMCS.EXE  
DEVICE=C:\PCMB\PCMRMAN.SYS  
DEVICE=C:\PCMB\PCMSCD.EXE  
DEVICE=CARDGO.EXE

#### [SystemSoft CardSoft V3.1]

DEVICE=C:\CARDSOFT\SS365SL.EXE //Socket Service for Intel Compatible //  
DEVICE=C:\CARDSOFT\CS.EXE  
DEVICE=C:\CARDSOFT\CSALLOC.EXE  
DEVICE=CARDGO.EXE

#### [Award Cardware V2.0]

DEVICE=C:\CARDWARE\SSPCCIC.EXE  
DEVICE=C:\CARDWARE\PCCS.EXE  
DEVICE=C:\CARDWARE\PCRM.EXE /AUTODETECT  
DEVICE=CARDGO.EXE

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[Note] Please do not use PCENABLE.EXE

### [AMI AMICARDZ]

DEVICE=C:\AMI\SSSL.SYS  
DEVICE=C:\AMI\AMICS.SYS  
DEVICE=CARDGO.EXE

[Note] Please do not use PCBE.SYS

### [Databook CardTalk V3.02]

DEVICE=C:\CARDTALK\TMB250.SYS /io:240  
DEVICE=C:\CARDTALK\CTALKCS.EXE  
DEVICE=C:\CARDTALK\CARDTALK.EXE /A /IOW=300-31F /MEMM=D000-D7FF  
DEVICE=CARDGO.EXE

### [IBM Thinkpad Socket and Card Services V2.12]

DEVICE=C:\EMM386.EXE NOEMS I=B000-B7FF X=C800-CFFF X=D000-DFFF  
DEVICE=C:\THINKPAD\IBMDSS01.SYS /D  
DEVICE=C:\THINKPAD\IBMDOSCS.SYS  
DEVICE=C:\THINKPAD\DI CRMU01.SYS /MA=C800-DFFF  
DEVICE=C:\THINKPAD\SI CPMDOS.SYS

## [4] DIAGNOSTIC PROGRAM

DIAG.EXE is a complete test program that users can make sure if the card is good or not. It provides the following card test functions:

- . IRQ verify
- . IO base verify
- . RAM test
- . Card Node ID test
- . Internal Loopback test
- . External Loopback test

[Note] Before execute diagnostic program, you must make sure the client driver, CARDGO.EXE, is installed.

## [5] Netware DOS ODI Driver

This directory contains Ethernet DOS ODI driver PCMODI.COM that supports NetWare 3.x and 4.x, NetWare Lite and other ODI interface application.

PCMODI.COM : DOS/ODI Driver for NetWare 3.x and 4.0.

The following instructions let you to install Novel NetWare Ver. 386 DOS ODI Driver :

### 5.1 How To Install

-----  
You need following five files to install DOS ODI DRIVER.

- a. LSL.COM                   ---- supported by Novell
- b. PCMODI.COM               ---- Novell DOS ODI Driver , supported  
                                  by manufacturer
- c. IPXODI.COM               ---- supported by Novell
- d. NETx.COM                  ---- supported by Novell  
                                  or  
                                  EMSNETx.EXE  
                                  or  
                                  XMSNETx.EXE
- e. NET.CFG                   ---- optional, configuration file

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After boot your workstation, type following comments on the console:

```
LSL           <Enter>
PCMODI       <Enter>
IPXODI       <Enter>
NETx         <Enter>
```

then, you can log in to the file server.

Normally, you will need a NET.CFG file to configure your your card. You can see Netware 386 Installation appendix E for more information about NET.CFG.

Below is a sample NET.CFG file:

```
LINK DRIVER PCMODI
  port 300
  int 5
  Frame Ethernet_II
  Frame Ethernet_802.3
  Protocol IPX EO Ethernet_802.2
  :
  :
```

### [6] Packet Driver

The driver PCMPKT.COM is the Packet driver.

To load the packet driver , type PCMPKT 0X60.

PCMPKT syntax:

```
PCMPKT [-h] [-n] [-d] [-w] [-u] <PACKET_INT_NO> [IRQ] [IO_BASE]
```

where:

[-h]            Show on-line help.

[-n]            Convert ETHERNET II header to IEEE 802.3 header.

[-d]            Do not start LAN card until this driver is called by the higher layer programs first.

[-w]            Running under Windows environment.

[-u]            Unload packet driver.

<PACKET\_INT\_NO>    This specifies the software interrupt (IRQ) where you'll load the packet driver. It must be in the range 0x60 to 0x80.

[IRQ]            This specifies the hardware interrupt (IRQ) where your card will be indicated.

[IO\_BASE]        This specifies the I/O address .

Example:

The following command line loads the Ethernet Packet Driver at software interrupt 60h, at I/O address 300, at hardware interrupt 5.

```
PCMPKT 0x60 0x5 0x300
or
```

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PCMPKT 0x60

- Note: The default I/O address is 300 .
- Note: The default hardware interrupt is 5
- Note: The placement of 0x prior to the parameters.

[7] NDIS V2.0 DRIVER FOR OS2 LAN SERVER

The Ethernet NDIS2 Driver for IBM OS2 LAN SERVER conforms to the Network Driver Interface Specification(NDIS2). This document shows you how to setup the driver and how to use the enhanced functions by setting the custom keywords in configuration file.

Installation by using IBM OS2 LAN SERVER Installation utility:

-----  
Please install the IBM LAN SERVER OS2 driver files following the procedures as described in the following.

1. Install OS/2 Lan Server to HardDisk and install Ethernet adapter in your system properly.
2. In OS/2 window, Click the "MPTS" icon.
3. The screen will display the IBM Logo panel, press "OK".
4. Select "Install" button.
5. Insert the Driver Diskette, specify the driver path A:\OS2 and press <Enter>.
6. When complete above step, then configure your system
7. The same step as step 4, select "Configure" button.
8. The screen will display "Configure" dialog box and select "LAN adapters and protocols" then press "configure" button.
9. The screen will display "LAPS Configuration" dialog box, move highlight to "Macsense MPC-10 Ethernet Card" item in "Network Adapter" window, and select "NetBios" "IEEE802.2" protocol. Press "OK".
10. Installation is complete now. Reset your PC by turning it off and on.

Configuration Files:

-----  
Sample of configuration file:

```

File Name:          C:\CONFIG.SYS
-----
...
Device=C:\IBMCOM\MACS\CARDG0.OS2 /IRQ 5 /IO 300
Device=C:\IBMCOM\MACS\PCMNDIS.OS2
...

```

CARDG0.OS2 command-line options

-----  
/IRQ x                    x specifies the IRQ

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/I0 yyy                    yyy specifies the I/O Base address

File Name:                    C:\IBMCOM\PROTOCOL.INI

```

.....
[IBMLXCFG]
  LANDD_ni f    = LANDD.ni f
  NETBEUI_ni f = NETBEUI.ni f
  ODI2NDI_ni f = ODI2NDI.ni f
  TCPIP_ni f    = TCPIP.ni f
  PCMCIA_ni f   = PCMCIA.ni f
.....
[LANDD_ni f]
  DriverName    = LANDDS
  Bindings      = PCMCIA_ni f
  ETHERAND_TYPE = "I"
.....
[NETBEUI_ni f]
  DriverName    = netbeui $
  Bindings      = PCMCIA_ni f
  ETHERAND_TYPE = "I"
.....
[ODI2NDI_ni f]
  DriverName    = odi 2ndi $
  Bindings      = PCMCIA_ni f
.....
[TCPIP_ni f]
  DriverName    = TCPIPS
  Bindings      = PCMCIA_ni f
[PCMCIA_ni f]
  DriverName    = PCMNDIS$
  IRQ           = 3
  IOBASE        = 0x300

```

Custom Keywords:

```

-----
IRQ                                    This keyword is used to set the
                                      interrupt of the adapter

IOBASE                                This keyword is used to set the
                                      I/O base address of the adapter

```

Important :

```

=====
When using "IBM Netware Requester Support" protocol to connect to Novell
server, be sure to fill the parameter(Network Adapter Address) to be the
same address as the Ethernet Address of MPC-10 NIC.

```

[8] NDIS DRIVER FOR WINDOWS FOR WORKGROUPS 3.11 INSTALLATION

A) Install NDIS driver to the WFW 3.11

The drivers named PCMNDIS.386 contained in the directory conform to the Network Driver Interface Specification (NDIS) defined by Microsoft/3Com.

NDIS Enhance Mode Driver Installation on Windows for Workgroups

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1. Run Windows by typing WIN from the DOS prompt.
2. Click the "Network" icon in the Main Program Group.
3. Click the "Network Setup" icon from the Network window.
4. Select "Drivers" item from the Network Setup dialog box.
5. Select "Add Adapters" item in the Option dialog box.
6. Select "Unlisted or Updated Network Adapter" when the Install driver field appears.
7. Type destination drive and path name in your PC. Make sure the full path of the directory (i.e. A:\WFW311) is given.
8. Insert MPC-10 Ethernet Card Driver Diskette in your floppy drive and press <Enter> to start the installation process.
9. When the "Macsense MPC-10 Ethernet Card" dialog box appear, press<Ok> to select the adapter.
10. Follow screen instructions to complete the process.
11. Restart your computer.

### Sample Configuration Files

=====

1. PROTOCOL.INI File on Windows for Workgroups 3.11

```
[network.setup]
version=0x3110
netcard=MPC-10, 1, MPC-10, 1
transport=ms$nwlink, NWLINK
transport=ms$ndishlp, MSSNDISHLP
transport=ms$netbeui, NETBEUI
lana0=MPC-10, 1, ms$nwlink
lana1=MPC-10, 1, ms$ndishlp
lana2=MPC-10, 1, ms$netbeui
```

```
[protman]
DriverName=PROTMANS
PRIORITY=MSSNDISHLP
```

```
[NWLINK]
```

```
BINDINGS=MPC-10
FRAME=ETHERNET_802.2
[MSSNDISHLP]
DriverName=ndishlp$
BINDINGS=MPC-10
```

```
[NETBEUI]
DriverName=netbeui$
SESSIONS=10
NCBS=12
BINDINGS=MPC-10
LANABASE=1
```

```
[MPC-10]
DriverName=PCMNDISS
IRQ=5
IOBASE=0x300
```

2. To change the IRQ and IOBase setting, edit the PROTOCOL.INI file, and change the IRQ and IOBASE values in [MPC-10] section.



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### [9] NDIS Driver for LAN Manager Installation

#### Installation Introduction for LAN Manager V2.1

- a. Type "lmsetup" In LanManager Directory. Press Enter.
- b. Choice "Network Drivers..." in " Configuration ". Press Enter.
- c. Choice <Add New Configs> , press Enter.  
Network Adapter Driver appears.
- d. Choice <Other Driver> , press Enter.
- e. Insert the Driver Disk to specified drive (A:\> or B:\>), key in the specified drive (A:\> or B:\>), then push <OK> button.
- f. Select a available Network Adapter Driver,  
"Macsense MPC-10 Ethernet Card"  
Push <OK> button.
- g. Press the SPACEBAR to select the protocol what you want.
- h. Push <OK> button.  
Configuration Complete appear.
- i. Push <Save> button.
- j. Press "F3" to exit.
- k. Press Enter.
- l. Copy "CARDGO.EXE" in Driver Diskette to LanManager Directory.

#### Sample configuration files:

##### [CONFIG.SYS]

###### a. <V2.1>

```
DEVICE=C:\LANMAN.DOS\CARDGO.EXE
DEVICE=C:\LANMAN.DOS\DRIVERS\PROTMAN\PROTMAN.DOS /i: C:\LANMAN.DOS
DEVICE=C:\LANMAN.DOS\DRIVERS\PCMNDIS.DOS
```

##### [Protocol.ini file for LAN Manager]

###### a. V2.1

###### [PROTMAN]

```
DRIVERNAME = PROTMAN$
DYNAMIC = YES
PRIORITY = NETBEUI
```

###### [NETBEUI\_XIF]

```
Drivername = netbeui$
SESSIONS = 6
NCBS = 12
BINDINGS = "PCMCIA_NIF"
LANABASE = 0
```

###### [PCMCIA\_NIF]

```
; protocol.ini section for Macsense MPC-10 Ethernet Card
```

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```
IOBASE = 0x300
IRQ = 5
DRIVERNAME = PCMDISS
```

[Autoexec.bat file for LAN Manager]

a. V2.1

```
@REM ===== LANMAN 2.1 === DO NOT MODIFY BETWEEN THESE LINES
SET PATH=C:\LANMAN.DOS\NETPROG;%PATH%
NET START WORKSTATION
LOAD NETBEUI
@REM ===== LANMAN 2.1 === DO NOT MODIFY BETWEEN THESE LINES
```

### [10] NDIS 3.1 Driver for Windows 95 Installation

#### INSTALLATION PROCEDURE:

- 1) Insert MPC-10 Ethernet Card into the PCMCIA slot.  
The system displays the "New Hardware Found" window, with "Macsense-MPC-10" as the device name.
- 2) Select "Drivers from disk provided by hardware manufacturer" if it is retail version Windows 95 (4.00.950).
- 3) Insert the driver diskette, then press enter.
- 4) Occasionally, the system may ask for files from the Windows 95 CD-ROM. Follow the prompt until the installation is complete.
- 5) Reboot the machine to start the network.

### [11] NDIS DRIVER FOR WINDOWS 98

#### INSTALLATION PROCEDURE:

- 1) Insert MPC-10 Ethernet Card into the PCMCIA slot.  
The system displays the "New Hardware Found" window, with "Macsense-MPC-10" as the device name.
- 2) Click Next, then select "Search for the best driver for your device.", and click Next to continue.
- 3) Uncheck the "Microsoft Windows Update". Let Windows 98 search floppy disk drives only. Then insert the driver diskette and click Next.
- 4) Select the found updated driver, Macsense MPC-10 Ethernet Card, then click Next.
- 5) Occasionally, the system may ask for files from the Windows 98 CD-ROM. Follow the prompt until the installation is complete.
- 5) Reboot the computer to start the network.

### [12] NDIS DRIVER FOR WINDOWS NT 3.51

#### INSTALLATION PROCEDURE:

- 1) Open the Control Panel, and choose Network Settings.
- 2) Click the Add Adapter button.

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- 3) Select <Other> Requires disk from manufacturer.
- 4) Type in the path A:\WINNT
- 5) Select the "Macsense MPC-10 Ethernet Card".
- 6) Set the IRQ level and I/O Port Address to any free resources,  
Valid IRQ's=2, 3, 4, 5, 6, 10, 11, 12, 15.  
Valid I/O's=240, 280, 300, 320, 340, 360.
- 7) Select Bus Type as "PCMCIA".
- 8) Leave the Bus Number Selected at 0.
- 9) Click on OK and back to the Network Settings.
- 10) Click on "Bindings" button.
- 11) Click on OK and Restart the Machine.

#### [13] NDIS DRIVER FOR WINDOWS NT 4.0

##### INSTALLATION PROCEDURE:

- 1) Open the Control Panel, and choose Network
- 2) Select Adapter tab and click the Add button.
- 3) Click Have Disk button.
- 4) Type in the path A:\WINNT
- 5) Select the "Macsense MPC-10 Ethernet Card".
- 6) Set the IRQ level and I/O Port Address to any free resources,  
Valid IRQ's=2, 3, 4, 5, 6, 10, 11, 12, 15.  
Valid I/O's=240, 280, 300, 320, 340, 360.
- 7) Select Bus Type as "PCMCIA".
- 8) Leave the Bus Number Selected at 0.
- 9) Click on OK and back to the Network Settings.
- 10) Click on "Bindings" button.
- 11) Click on OK and Restart the Machine.