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# Installation Guide

## DTC 3274VL VESA BUSMASTER SCSI Host Adapter

Part Number 900176-89A



### DTC DATA TECHNOLOGY

C O R P O R A T I O N

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### DTC DATA TECHNOLOGY

C O R P O R A T I O N

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## Introduction

The DTC 3274VL host adapter is designed to bridge between the SCSI bus and the VESA Local Bus (VL-BUS). This combination allows installation of up to seven Small Computer System Interface (SCSI-1 or SCSI-2) devices in a single VESA Local Bus expansion slot.

The DTC 3274VL Kit should include the items listed below. If anything is missing or damaged, contact the dealer where the product was purchased.

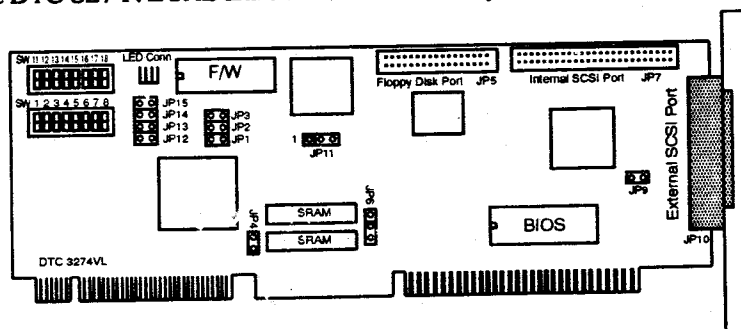
- DTC 3274VL VL-Bus SCSI Host Adapter
- DTC 3274VL Driver Diskette
- Internal SCSI cable
- DTC 3274VL Installation Guide

The DTC 3274VL Driver Diskette contains the following files:

Subdirectory	File Name	Function
ROOT	EZINSTL.BAT	DTC EZ Install Batch file
DOS	INSTALL.EXE	DTC Installation Utility
	ASPI4VBM.SYS	ASPI Manager for DOS/WIN
	ASFDISK.EXE	ASPI Partition Utility
	ADTC-CD.SYS	ASPI CD-ROM Driver
	ASCSI.SYS	ASPI Secondary Disk Device Driver
NOVELL	NV3VBMAS.DSK	ASPI Manager for Novell 386 V3.1x
	NV3VBMHD.DSK	ASPI Disk Driver for Novell 386 V3.1x

## Quick Install

To prevent damage to the DTC 3274VL from static electric discharge, leave the DTC 3274VL in its anti-static cover until ready to install into the system.



**Figure 1: Diagram of the DTC 3274VL Host Adapter Board**

The following table shows the default configuration of the DTC 3274VL shipped from the factory.

**Table 1: Default Setup Reference Chart**

DTC 3274VL Factory Configuration Defaults		Notes
Interrupt	11	
BIOS Memory Address	C800H - CBFFH	
Floppy Drive	Enabled	
Floppy Port Address	3F2H-3F7H	
SCSI Parity	Enabled	
DTC 3274VL SCSI ID	7	
VL BUS Clock Speed	33 MHz	
Port	330	
Synchronous Transfer	Disabled	
Fast Sync	Disabled	

If you do not need to change the default configuration, proceed to the next page. If any changes from the Factory default settings are required, refer to the DTC 3274VL Jumper Settings section. Any changes should be documented for future reference.

## Installation of DTC 3274VL as Primary Hard Disk Controller

### Note:

If problems occur during installation or you are not familiar with the installation of SCSI controllers. Then proceed to the "DTC 3274VL Installation" section of this Install Guide for detailed step by step instructions.

### Installing the DTC 3274VL Card

- Install the DTC 3274VL host adapter in an empty VESA Bus slot.
- Connect floppy disk drive(s) if used. Verify SW16 is OFF if attaching floppy disk drives.
- Connect SCSI device(s). Set a unique SCSI ID for each device (SCSI ID 7 is default for the DTC 3274VL). To verify proper SCSI bus termination, refer to Step 6 of "Installing the DTC 3274VL" section of this Installation Guide.

### System CMOS Set-up

- Set drive type to "None" or "No drive present" in the system CMOS for SCSI hard disk drives connected to DTC 3274VL

### DOS Partition and Format of Hard Disk Drives

- Refer to your DOS manual for instructions.

### EZ-Install of the DOS/Windows drivers

The EZ-Install utility will query all SCSI devices attached and install and configure all the required device drivers automatically.

- Insert the DTC 3274VL Driver diskette in the floppy drive. Type the following at the DOS prompt:

**A: <cr>** (example if floppy is A: drive)  
**ezinstl <cr>**

- Follow the easy instructions provided in the windows.
- Installation is now complete. Remove the floppy diskette, and reboot the system.

## DTC 3274VL Switch & Jumper Settings

### Jumpers

The DTC 3274VL SCSI Host Adapter can be configured for use in virtually any computer system with a VESA Local Bus slot. Each jumper is described in detail below. Refer to Figure 1 for jumper locations. Refer to Figure 2 for jumper terminology. When a jumper is removed, save the jumper for later usage by installing it on a single stake.

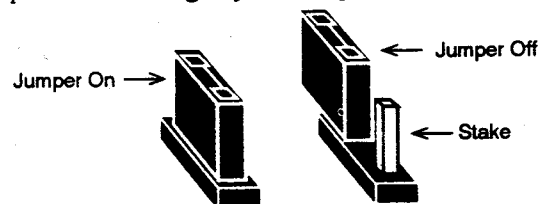


Figure 2: DTC 3274VL Jumper Diagram

Jumper	Position	Description
JP1	ON	BIOS support for 3 or more hard drives enabled through INT13H
	OFF	BIOS support for 2 hard drives only through INT13H (Default)
JP3	ON	BIOS enabled (Default)
	OFF	BIOS disabled
JP9	ON	Active Terminator disabled
	OFF	Active Terminator enabled (Default)

Jumper	Position	Description
JP2	OFF	Reserved (*)
JP4	OFF	Reserved (*)
JP6	1-2	Reserved (*)
JP11	2-3	Reserved (*)
JP12	OFF	Reserved (*)
JP13	OFF	Reserved (*)
JP14	OFF	Reserved (*)
JP15	OFF	Reserved (*)

(\*) - Reserved, Installed at Factory

### Switches

Refer to Figure 1 for location of switches. A switch is ON (CLOSED) when the slide is moved toward the ON location. Switches will use the labels ON-OFF or CLOSED-OPEN.

#### VL Bus Clock Speed - SW1

The VESA Local Bus clock speed is based on the CPU speed, and must be selected for proper operation.

CPU - CLOCK	SW1
LCLK <= 33 MHz(Default)	OFF
LCLK > 33 MHz	ON

#### Base I/O Address - SW2 & SW3

I/O Address	SW2	SW3
330h (default)	OFF	OFF
334h	OFF	ON
230h	ON	OFF
130h	ON	ON

**BIOS Memory Address - SW4 & SW5**

The DTC 3274VL on-board BIOS uses 16K of memory space in the system's ROM address range.

BIOS Base Address	BIOS Range	SW4	SW5
C800H (default)	C800 - CBFF	OFF	OFF
CC00H	CC00 - CCFF	OFF	ON
D800H	D800 - DBFF	ON	OFF
DC00H	DC00 - DFFF	ON	ON

**Host Interrupt - SW6 & SW7**

Host Interrupt	SW6	SW7
15	OFF	OFF
12	OFF	ON
11 (default)	ON	OFF
10	ON	ON

**DTC 3274VL SCSI ID - SW11, SW12 & SW13**

Each device on the SCSI bus must have a unique SCSI ID. The DTC 3274VL typically should have the highest SCSI ID.

	SCSI ID (Default)							
	0	1	2	3	4	5	6	7
SW13	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW12	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW11	ON	OFF	ON	OFF	ON	OFF	ON	OFF

**Synchronous Negotiation - SW14**

Synchronous Negotiation	SW14
Synchronous Negotiation enabled	OFF
Synchronous Negotiation disabled (Default)	ON

**Fast SCSI - SW15**

Enable/disable fast synchronous transfer (10MByte/sec). SW14 - Synchronous Neg must be enabled to enable fast synchronous transfer.

Fast Synchronous Transfer	SW15
Fast synchronous transfer enabled	OFF
Fast synchronous transfer disabled (Default)	ON

**Floppy Disk Controller - SW16**

Floppy Disk Controller	SW16
Floppy disk controller enabled (Default)	OFF
Floppy disk controller disabled	ON

**SCSI Bus Parity - SW17**

SCSI Parity	SW17
SCSI Bus Parity enabled (Default)	OFF
SCSI BUS Parity disabled	ON

**SW18**

Reserved for future use.

**Floppy Disk Drive Support**

The floppy drive circuitry is controlled by SW16. When a floppy disk drive is attached to the floppy connector (JP5), then enable the Floppy Disk Controller.

**Floptical Support**

The DTC 3274VL provides support of Floptical drives through the use of an ASPI utility, such as CORELSCSI!

## DTC 3274VL Installation

### Installing the DTC 3274VL Card

1. Verify that all the DTC 3274VL jumpers and switches have been properly configured.
2. Switch off the power to the computer and all devices connected to the computer.
3. Insert the DTC 3274VL into an empty VESA Bus slot.
4. Connect the floppy drives to the DTC 3274VL.
  - Connect the 34-pin twisted ribbon floppy disk drive cable to JP5 on the board.
  - Connect the twisted edge connector to the first floppy disk drive and the non-twisted edge connector to the second floppy drive (if there is one).
  - Make sure the colored edge of the cable is aligned with Pin 1 on JP5 and Pin 1 of the floppy drive.
  - If two floppy drives are used, both drive selects should be set to Drive 2.
  - The drive at the end of the cable will be Drive A:. Remove the terminating resistor from the second floppy drive (Drive B:) per the manufacturer's directions.
5. Connect the SCSI devices to the DTC 3274VL.
  - Set a unique SCSI ID for each SCSI device attached (Refer to Table 2, "SCSI ID Setup". The DTC 3274VL SCSI ID must be set higher than the other SCSI devices. In a bootable configuration, the DTC 3274VL will attempt to boot from the hard disk drive with the lowest SCSI ID number.
  - For all SCSI devices mounted internally to the host system, connect one end of a 50-pin SCSI ribbon cable to the 50-pin header (JP7) on the DTC 3274VL. Be sure that pin 1 of the 50-pin header is connected to pin 1 of the SCSI devices.
  - For all SCSI devices mounted externally to the host system, connect one end of a SCSI High Density cable to the external connector (JP10) on the DTC 3274VL.

### 6. SCSI Bus Termination and SCSI cabling

Proper SCSI Bus Termination and cabling are required for reliable operation of your SCSI peripherals. Please review this section carefully. The first and last physical devices connected to the SCSI bus are required to have termination. The remaining SCSI devices connected to the SCSI Bus must have their termination removed.

If **Internal only** or **External only** SCSI devices are used, then the DTC 3274VL is the first device on the SCSI bus and should have termination. Verify that the shunt on JP9 is removed.. Refer to Figure 1: Board Layout for location.

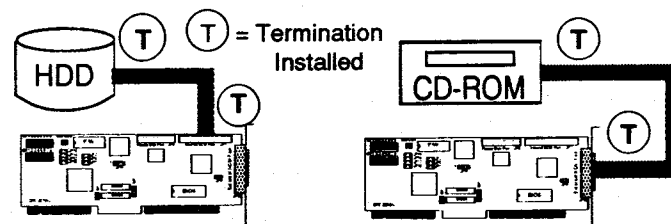


Figure 3: SCSI Device Termination

If **Both internal and external** SCSI devices are attached, the DTC 3274VL should not be terminated. Verify that the shunt is installed on JP9. Verify that termination is installed in the last internal device and last external device attached to the host adapter. The DTC 3274VL comes from the factory with termination enabled.

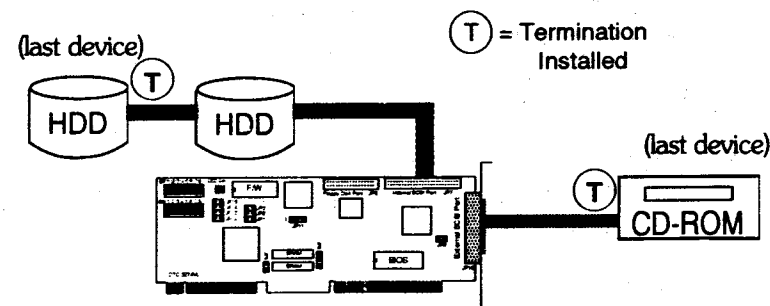


Figure 4: SCSI Device Termination

7. Assemble the computer. Refer to the computer manual for the proper procedure.

### CMOS Setup for SCSI Hard Disk Drives

The drive type for the SCSI hard disk drives connected to the DTC 3274VL should be set to "None" or "No drive present" in the system CMOS.

### Low-Level Formatting

Most SCSI disk drives available today DO NOT require or allow the user to perform a low-level format. If the drive does require a low-level format, refer to the "DTC Utilities" section of this Install Guide for instructions.

### Finishing the Install with the DTC 3274VL as the Primary

- Boot your system from a DOS Floppy.
- Partition the Interrupt 13 Hard Disk Drives with the DOS "FDISK" utility. Refer to the DOS manual for instructions. (The number of Interrupt 13 drives is controlled by JP1)
- DOS Format the Partitions created. (Refer to DOS Manual)
- Install DOS on the Boot Drive C:
- Place the DTC 3274VL Driver Diskette in the floppy Drive.
- Type the following at the DOS prompt:  
`A: <cr>` (this assumes diskette is in A: drive)  
`ezinstl <cr>`
- Follow the instructions on the EZ-Install windows. The EZ-Install utility will query all SCSI devices attached and install and configure all the required device drivers automatically.
- Installation is complete, Reboot the system.

### Secondary

- Boot DOS from the C: drive.
- Place the DTC 3274VL Driver Diskette in the floppy Drive.
- Type the following at the DOS prompt:  
`A: <cr>` (this assumes diskette is in A: drive)  
`ezinstl <cr>`
- Follow the instructions on the Install Utility windows. The EZ-Install utility will query all SCSI devices attached and install and configure all the required device drivers automatically.
- Reboot the system.

- Partition any additional Hard Disk Drives with the DTC "ASFDISK" utility. Refer to DTC Utilities section of this Install Guide for instructions.
- DOS Format the Partitions created. (Refer to DOS Manual)
- Installation is complete, Reboot the system.

## DOS/Windows Installation

### EZ-Install

The installation of the DTC 3274VL has been made easier with the use of the DTC "EZ-Install" Utility. The EZ-Install utility will query all SCSI devices attached and install and configure all the required device drivers automatically. The EZ-Install can be used on the initial installation and also on an installation update.

### Initial Installation

Insert the DTC 3274VL Driver Diskette in the floppy drive, then type the following at the DOS prompt:

```
A: <cr>
ezinstl <cr>
```

### Configuration Update

If you are adding another DTC 3274VL, or adding additional SCSI devices to a previously installed DTC 3274VL, then the EZ-Install Utility can be used to check and update the device drivers.

- Change the directory of the boot drive to the DTC driver directory.
- Type the following at the DOS prompt:  
`install <cr>`

### Manual Installation of DOS/Windows Drivers

This section is for reference, if for some reason the DTC EZ-Install Utility did not properly install your DTC 3274VL. Compare your CONFIG.SYS and AUTOEXEC.BAT files with the examples shown for your configuration.

Verify that all files from the DTC 3274VL Driver Diskette have been copied to the boot drive. If not, then insert the 3274VL Driver Diskette in your floppy drive and type the following at the DOS prompt:

**COPY A:\DOS\\*. \* C:\DTCSCSI**

### ASPI Manager Installation

The ASPI (Advanced SCSI Programming Interface) Manager, ASPI4VBM.SYS, supports those utilities and drivers which interface to controllers through the ASPI standard (including Corel\*, Sytos\*, Sytos Plus\* and ARCserve\*\Solo tape utilities). Installation of the ASPI manager is also required for proper operation of the DTC DOS ASPI Utilities found on the DTC 3274VL Driver Diskette. Find your configuration and install the DTC drivers as instructed.

#### NOTES:

*The DTC ASPI Manager statement "DEVICE=ASPI4VBM.SYS" must precede any other "DEVICE=" statements for those drivers which require **ASPI** interface in the CONFIG.SYS file.*

*If "SMARTDRV.SYS" is present, it must be loaded after "ASPI4VBM.SYS" and "ASCSI.SYS" in the CONFIG.SYS file.*

*Sample CONFIG.SYS files are given in the Troubleshooting section of this Installation Guide. If you are using Windows or a Memory Manager, please refer to the Troubleshooting section.*

### One DTC 3274VL and One or Two Hard Disks

Add the following line to the CONFIG.SYS file:

**DEVICE=C:\DTCSCSI\ASPI4VBM.SYS**

### Hard Disk Drives NOT Installed with BIOS (INT13)

Add the following line to the CONFIG.SYS file:

**DEVICE=C:\DTCSCSI\ASCSI.SYS**

### Two DTC 3274VL SCSI Host Adapters Installed

Verify the following line is in the CONFIG.SYS file:

**DEVICE=C:\DTCSCSI\ASPI4VBM.SYS**

#### NOTE:

*The primary DTC 3274VL must use a lower BIOS address than the secondary DTC 3274VL*

### CD-ROM Drive Installation

The DTC 3274VL Driver Diskette contains the ASPI compatible CD-ROM driver, "ADTC-CD.SYS", in the DOS subdirectory. Both this CD-ROM driver and the ASPI Manager are required to support CD-ROM devices in a DOS/WIN environment. To complete the installation, a copy of Microsoft's MSCDEX.EXE file is required.

- Verify that the ASPI manager, "ASPI4VBM.SYS", is in the CONFIG.SYS file.
- Add the following line to the END of the CONFIG.SYS file:  
**DEVICE=C:\DTCSCSI\ADTC-CD.SYS /D:DTCCD**
- Add the following line to the END of the AUTOEXEC.BAT file:  
**MSCDEX.EXE /D:DTCCD /M:10**

#### NOTE:

*The /D: and /M: are command line options for the MSCDEX.EXE file. The /M: allows specification of CD-ROM sector buffers. DTC recommends that a minimum of 10 buffers per CD-ROM be specified. The /D: specifies the CD-ROM volume name. The volume name used in this Installation Guide is "DTCCD".*

- Copy the Microsoft file, MSCDEX.EXE, to the system root directory as follows:  
**COPY A:\MSCDEX.EXE C:\**

#### NOTE:

*With DOS 6.0 installed the MSCDEX.EXE file is already on the*

*Hard disk, and this step can be skipped.*

- Installation of the CD-ROM is complete, Re-boot the system.

### Supported CD-ROM Drives

DTC Data Technology Corporation has tested many of the available CD-ROM drives on the market. A list of the tested CD-ROM drives is available from either the DTC Technical Support BBS, or the DTC Automated Fax Response system. Refer to the Technical Support section of this Installation Guide.

## DTC Utilities

### Low-Level Formatting

Most SCSI disk drives available today DO NOT require or allow the user to perform a low-level format. If the drive does require a low-level format, the user may use the low-level format utility provided in the DTC 3274VL BIOS.

- To low-level format a SCSI drive, type the following at the DOS prompt:

#### DEBUG

- At the DEBUG prompt "-", type the following:

**g=<BIOS ADRS>:5**

for example, if your DTC 3274VL is at BIOS ADRS C800, you would type: g=C800:5

The screen will display the following:

```
(0) Select a SCSI disk
(1) Format the selected SCSI disk
(2) Verify the selected SCSI disk
(3) Exit and reboot
Enter Choise (0, 1, 2, 3):-->
```

Target:            LUN:

**Option 0** Type in the number of the drive to format, i.e. 1. This number corresponds to the drives SCSI ID #.

**Option 1** formats the selected SCSI disk drive using the default parameters.

**Option 2** verifies the selected SCSI drive

**Option 3** exits this utility.

#### NOTE:

*SCSI drives that do not allow a low-level format will typically return a format complete message promptly without physically executing the format function.*

### Partitioning

Refer to your DOS manual for instructions on how to use the DOS FDISK utilities to partition any hard disk drives installed as Interrupt 13 drives. The number of Interrupt 13 drives is controlled by jumper JP1.

For situations where DOS "FDISK" cannot be used, a DOS compatible partitioning utility is supplied. This utility, ASFDISK.EXE, is equivalent to the DOS "FDISK" utility and is used to partition drives in those configurations not handled by DOS "FDISK".

The system must be booted with the statement "DEVICE=ASPI4VBM.SYS" in the CONFIG.SYS file. To use ASFDISK.EXE to partition the SCSI disk drive, at the DOS prompt type:

#### ASFDISK

Follow the on screen instructions to complete the partitioning procedure. The DTC ASFDISK utility is patterned after the standard DOS FDISK utility. Refer to your DOS manual for details.

## Novell NetWare Installation

### NetWare 386 V3.11

The installation of the DTC 3274VL NetWare V3.1x driver is accomplished either by loading the ASPI manager and hard disk driver at the server console and selecting the proper adapter card base I/O port to install, or by loading automatically through STARTUP.NCF.

#### Loading the Driver at the Server Console

- With NetWare installed and the DTC 3274VL Driver Diskette in Drive A:, at the NetWare colon (:) prompt enter the following:

**LOAD A:\NOVELL\NV3VBMAS**

- At the NetWare colon (:) prompt enter the following:

**LOAD A:\NOVELL\NV3VBMHD PORT=XXX INT=YY**

where XXX is the Port Address (default is 330), and YY is the IRQ number (default is 11).

You will be prompted for a Port address. Repeat once for each additional DTC 3274VL installed (i.e. duplexing).

Novell NetWare installation is now complete.

#### Generating STARTUP.NCF

Since the ASPI manager, NV3VBMAS.DSK is not a disk driver, NetWare 386 will not automatically load it into the STARTUP.NCF file. Therefore, it must be added manually as follows:

**LOAD [PATH] NV3VBMAS**

**LOAD [PATH] NV3VBMHD PORT=<Port Base Address> INT=<IRQ #>**

Repeat once for each additional DTC 3274VL installed (i.e. duplexing).

#### NOTE:

The **[PATH]** statement, including the brackets, must be replaced with a valid path where the **NV3VBMAS** and **NV3VBMHD** files are located.

The **<Port Base Address>** statement, including the brackets must be replaced with the **PORT** base address set by SW2 & SW3. The **<IRQ #>** statement including the brackets must be replaced with the **Interrupt** set by SW6 & SW7. If the switches were set for defaults, then the **STARTUP.NCF** entry would be as follows:

**LOAD C:\ NV3VBMHD PORT=330 INT=11**

### Novell NetWare 386 V3.12, 486 V4.0, 4.1

Follow the instructions provided in the NetWare Installation Guide to load the built-in device driver for these versions of NetWare.

#### Windows NT

Follow the instructions in the Windows NT Installation Guide to automatically recognize the DTC 3274VL and load the built-in Win NT driver.

#### IBM OS/2 2.x

Follow the instructions in the IBM OS/2 2.x Installation Guide to automatically recognize the DTC 3274VL and load the built-in OS/2 driver.

#### SCO UNIX V3.2.4

Follow the instructions in the SCO Unix Installation Guide to automatically recognize the DTC 3274VL and load the built-in SCO Unix driver.

#### Limited Hardware Warranty

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## Troubleshooting

If you have properly installed the DTC 3274VL SCSI controller into your system, you should see the following display at Power-On or Reset.

**DTC Data Technology Corporation**  
**VESA SCSI Bus Master Host Adapter**  
**BIOS Version: BVOxxx mm/dd/yy**

**SCSI ID 0 - LUN 0 SEAGATE ST2383N 9303 (Drive C:)**

### DTC BIOS Installed

If your system does not display the above screen, then recheck your installation. The DTC 3274VL will scan and display all SCSI devices attached. If not all the attached devices are displayed, recheck your installation and refer to the Most Common Problems with Solutions section that follows.

After the Scan, your system will continue through a normal boot-up sequence. If you are using the DOS/Windows operating system, you should see the following message when the DTC 3274VL ASPI driver loads properly:

**DTC Data Technology Corporation**  
**DTC VESA SCSI BUS MASTER ASPI Manager Vx.xA mm/dd/yy**  
**Adapter found in PORT Addr 0330H**  
**SCSI devices Found:**  
**Device: (HA 0, ID0, LUN 0): SEAGATE ST2383N**

If your system does not display this message, refer to the Sample CONFIG.SYS files in this Troubleshooting section.

If you have properly loaded the CD-ROM driver, ADTC-CD, the following screen will display:

**Copyright (C) 1987-1994 DTC Data Technology Corporation**  
**ADTC-CD.SYS Version x.xA mm/dd/yy**

**Installing CD-ROM Drive: <Drive Name and Model>**

## Most Common Problems & Their Solutions

**Problem:** Error message **1701- Host Adapter Ram Failure.**

### Solution:

- 1) The DTC 3274VL host Adapter is not properly seated in the slot. Reinsert the DTC 3274VL in slot or move to new slot.
- 2) The DTC 3274VL BIOS may be having an address conflict with another board in the system, i.e. VGA card. Check the Memory base address of all boards in the system to verify that they are all at unique addresses.
- 3) Check that BIOS shadowing or Shadow Ram is Disabled for the address range selected for the DTC 3274VL BIOS.

**Problem:** During Boot, the system hangs before displaying the DTC SCSI Scanning screen.

### Solution:

Check the System CMOS settings and make sure the drive type selection is set to None or Not Installed for any drives attached to the DTC 3274VL

**Problem:** During Boot, the DTC 3274VL scans the SCSI bus but does not find all the devices attached.

### Solution:

- 1) Confirm that each SCSI device has a unique SCSI ID, and that the DTC 3274VL has the highest SCSI ID (default SCSI ID 7).
- 2) Verify that the SCSI Bus cabling and SCSI Bus Termination are properly installed.

**Problem:** During Boot, the DTC 3274VL successfully scans the SCSI bus, but then the system hangs or is unable to boot.

### Solution:

Make sure the Boot Hard Disk has been partitioned (FDISK or ASFDISK) and formatted (DOS Format). Check that the Boot partitions have been activated, and the operating system has been transferred to the Boot drive.

**Problem:** When the DTC 3274VL scans the SCSI Bus, all the SCSI IDs display the same hard drive.

### Solution:

A SCSI device ID may be conflicting with the DTC 3274VL SCSI ID or another attached SCSI device. Check the device ID.

**Problem:** You get an error message when the ASPI4VBM.SYS driver is loaded, **ASPI Adapter Not Found**, or **No ROM**

**Basic.**

**Solution:**

- 1) Confirm the Boot Drive is partitioned and formatted.
- 2) Check for BIOS Address conflicts with other devices, i.e. VGA card or Shadowing.

**Problem:** Error message, **ASPI manager not found.**

**Solution:**

The ASPI4VBM.SYS ASPI Manager did not get loaded. Add this driver to your CONFIG.SYS file. Verify that the CONFIG.SYS file is similar to the Sample CONFIG.SYS files found in this section.

**Problem:** Can not boot from hard disk, but can access it, if boot from floppy.

**Solution:**

- 1) Using FDISK or ASFDISK verify that the partition on the drive is Active.
- 2) Verify that the CMOS is set to **None** or **Not Installed** for all SCSI devices.

**Problem:** Will not boot to hard drive on a Cold Boot, but will boot to hard drive on a Warm Boot.

**Solution:**

The hard drive may not be ready during SCSI bus scan. To allow more time to become ready, change the hard disk SCSI ID to 5 or 6.

**Problem:** Drive worked under DOS, but you are unable to: a) load the DTC 3274VL Novell drivers, or b) you are unable to create a Novell partition.

**Solution:**

- 1) Load NV3VBMAS and NV3VBMHD drivers.
- 2) Novell requires that the Boot drive be ID 0.

**Problem:** Tape unit is not working or hangs.

**Solution:** Change the DTC 3274 to ASYNC mode, by changing SW14 to ON.

## WINDOWS 3.1

Installation of the ASPI manager, ASPI4VBM.SYS, is highly recommended for optimal performance. The following sample CONFIG.SYS files are examples which DTC has tested with Windows 3.1 and specific Memory Managers. The ASPI4VBM.SYS driver can NOT be loaded into high memory.

### Sample CONFIG.SYS Files for the DTC 3274VL

#### EMM386

```
DEVICE=C:\WINDOWS\HIMEM.SYS
DOS=HIGH,UMB
DEVICE=C:\WINDOWS\EMM386.EXE NOEMS
DEVICE=C:\DTCSCSI\ASPI4VBM.SYS
FILES=30
BUFFERS=20
STACKS=9,256
SHELL=C:\COMMAND.COM /P /E:512
```

#### QEMM V6.02 & V7.01

```
DEVICE=C:\QEMM\QEMM386.SYS RAM
DOS=HIGH
DEVICE=C:\DTCSCSI\ASPI4VBM.SYS
FILES=30
BUFFERS=20
STACKS=9,256
SHELL=C:\COMMAND.COM /P /E:512
```

#### 386MAX V6.02

```
DEVICE=386MAX.SYS PRO=\386MAX.PRO NOSCSI
DOS=HIGH
DEVICE=C:\DTCSCSI\ASPI4VBM.SYS
FILES=30
BUFFERS=20
STACKS=9,256
SHELL=C:\COMMAND.COM /P /E:512
```

When installing 386MAX software, let the installation process update the Windows' SYSTEM.INI file. It will add the following two lines :

```
VCPIWarning=False
SystemROMBreakPoint=FALSE
```

## Technical Support

DTC Data Technology has a knowledgeable staff of Technical Support Engineers dedicated to assisting our customers with any technical issues which they may encounter using or installing DTC Data Technology products. For the convenience of our customers, DTC Data Technology provides several Technical Support alternatives to choose from.

### **Automated Fax Response System (408) 942-4005**

(Available in the U.S. Only)

DTC Data Technology offers a 24-hour Automated FAX Response system. The information available has been found to address a majority of customer questions and issues. The type of information available includes configuration and jumper setting instructions, technical and application notes, peripheral and driver compatibility lists, product data sheets, and an authorized distributor list. The DTC automated FAX response system is quick and easy to use. Call the Automated Fax Response system from a touch-tone phone and follow the instructions provided to send any of the stored documents to your fax machine automatically.

### **Phone Support (408) 262-7700**

Technical support personnel are available Monday through Friday (excluding holidays) from 7:30 am to 5:00 PM (Pacific Time Zone). To help DTC Technical Support personnel quickly resolve your issues, have the following information available when calling:

- a.) DTC Data Technology product name
- b.) Name and model number of all devices attached to the DTC controller
- c.) Copies of your CONFIG.SYS and AUTOEXEC.BAT files.

### **Bulletin Board System (408) 942-4010**

DTC Data Technology maintains a 24-hour electronic Bulletin Board System (BBS) which contains application notes, installation guides and driver updates for DTC products. In addition, the Message capability of the BBS can be used to communicate with DTC Technical Support personnel.

BBS setup requires the following modem settings:

**Baud Rate:** 1200 - 14400 bps **Data Bits:** 8 **Stop Bit:** 1 **Parity:** None

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### FCC

This device complies with the Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. However, there is no guarantee that interference will not occur in a particular installation. DTC Data Technology is not responsible for any television, radio, or other interference caused by unauthorized modification of this product.

If interference does occur, try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the computer with respect to the receiver.
- Move the computer away from the receiver.
- Plug the computer into a different outlet so that the computer and receiver are on different branch circuits.
- If necessary, consult your dealer or an experienced radio/television technician.

NOTE: When interfacing with an external device, a shielded cable must be used to comply with FCC regulations.

Modifications to this equipment that are unauthorized by the manufacturer may void the user's right to operate this device according to FCC rules.