Internal ATAPI DVD-ROM Reader
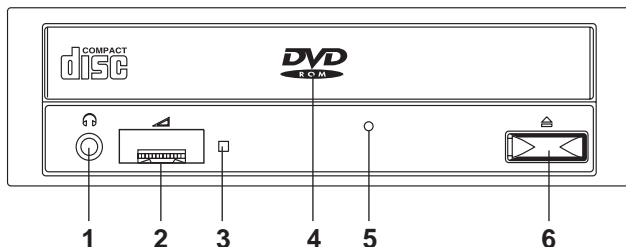
DV-5700

User's Manual

Part Names and Functions

Front View

1   2   3   4   5   6

1 Phones Jack

This jack is used to connect a set of headphones.
Please use headphones with a stereo mini-jack plug.

2 Volume Control

This control is used to adjust the headphone volume.
NOTE: This control has no effect on the audio outputs
from the LINE OUT connector on the back of
the DVD-ROM reader.

3 BUSY Indicator

This indicator lights during data read operation.

4 Tray Panel

This Panel prevents dust from entering the DVD-ROM
reader and opens automatically when the Load/Eject
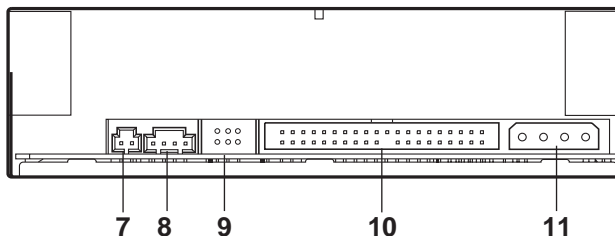button is pushed.

5 Emergency Eject Hole

Use to remove the disc from the DVD-ROM reader if
the electrical eject is disabled by software or if power
failure occurs. (see "Emergency Eject" for details)

6 Load/ Eject Button

This button is pressed to eject or retract the disc tray when
the power is on.

Rear View

7 8   9   10   11

7 DIGITAL OUT Connector

This connector is used to connect Digital Audio to an
audio board.

8 LINE OUT Connector

This connector is used to connect CD-Audio to an
audio board.

9 JUMPER BLOCK

These blocks of jumper set the configuration for the
DVD-ROM reader. (see "Jumper Setting" for details)

10 I/O BUS Connector

This BUS connector is used to control the DVD-ROM
reader and data transmission. Use a flat ribbon cable to
connect your computer to the CD- ROM reader.
Connect the colored side of the ribbon cable to the side
marked with the arrow.

11 Power Connector

Use this to provide operating power from the host
computer.

Laser Safety Information

This drive employs a laser. Do not remove the cover or
attempt to service this device when connected due to the
possibility of eye damage.

CAUTION

Adjustment of control or
following procedures other
than those specified herein
may result in hazardous
radiation exposure.

CLASS 1 LASER PRODUCT
LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
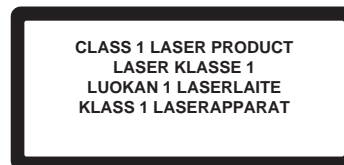
This label is located on upper enclosure of this drive.

Laser Specification:

5mW Semiconductor Laser GaAlAs, 770-810nm for CD and
InGaAIP, 635-665nm for DVD (at $25^{1/2}$ ^{0}C)

Installation

Jumper Setting

A jumper consists of a pair of pins and a connector which
fits over the pins. When the connector is in place it estab-
lishes an electronic link between the pins, which enables
the function being controlled by the jumper. If the
connector is removed, the electronic link is broken and the
function is disabled.

Jumpers are used to set the
CD- ROM reader mode on the IDE
interface. The factory default setting
is MASTER for fitting to enhanced
IDE controllers supporting two
ports, one for hard disk and one for
DVD-ROM. If you prefer to con-
nect the DVD-ROM reader to the
same port as your harddisk, (as a
secondary device) you have to
change jumper setting to SLAVE
mode.

JUMPER
BLOCK
1 2 3

CSEL
SLAVE
MASTER
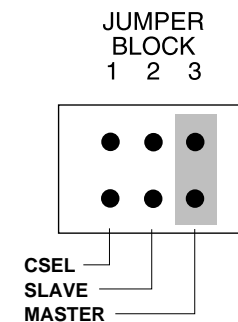
Installing the DVD-ROM reader in a host PC

1. Turn off the computer, other peripherals and unplug all
the cords and cables. Then remove the computer cover,
face plate, mounting clips, and keeper bracket. Refer to
the Guide to Operations that came with your computer
for help with this step.

2. If necessary, slide other devices above the installation
place out approximately 50 ~ 70mm (2 ~ 3 in.), but do not
disconnect the cables.

3. Slide the DVD-ROM reader into the computer until it is
out approximately 50 ~ 70mm (2 ~ 3 in.).

4. Locate a spare power cable
in your computer.

5. Connect that power
cable to the power
connector on the
back of the
DVD-ROM reader.

Power
Connector

Power Cable
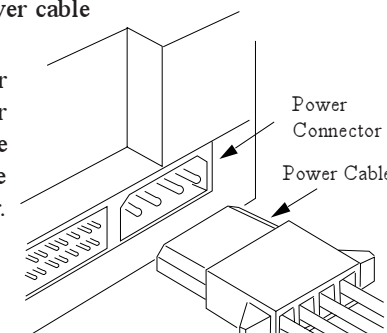
6. Connect the I/O BUS connector on the DVD-ROM reader and the IDE controller. Connect the colored stripe side of the cable to the side marked with the arrow (∇).
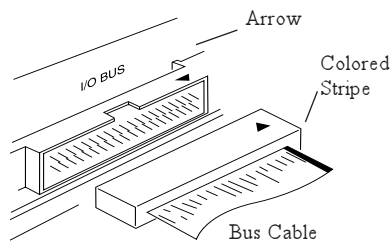

7. Slide the DVD-ROM reader into the computer and fix it in the computer cabinet with 4 screws.
   NOTE: To avoid damage to the DVD-ROM reader take care, that the screws do not reach more than 5 mm into the DVD-ROM readers cabinet.

8. Replace the mounting clips, keeper bracket, and computer cover. Refer to the Guide to Operations that came with the computer for help with this step.

Vertical use

The DVD-ROM reader can be used in the vertical position. When using the DVD-ROM Reader, in the vertical position, load and unload discs as shown on the diagram below.
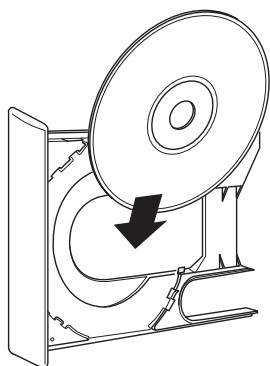

DVD-ROM reader installed vertically (right side)
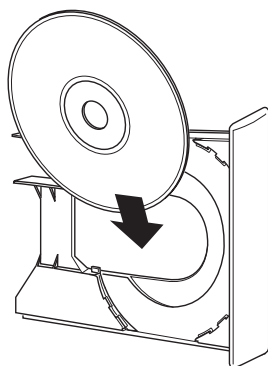
DVD-ROM reader installed verticallly (left side)

NOTE: Only 12cm discs can be used when the DVD-ROM reader is installed vertically. Do not place 8cm discs in the tray when using the DVD-ROM reader installed in this way.

Emergency Eject

The procedure described below can be used to open the tray of the DVD-ROM reader if the EJECT button is disabled by software or a power failure occurs.

1. Turn off the power to the DVD-ROM reader.

2. Open the reader's door.

3. Insert a steel rod (about 1.3mm in diameter) into the emergency eject hole and push firmly until the cartridge is ejected. A stiff paper clip may be used as steel rod.

65mm
(at least 45mm in lenght)
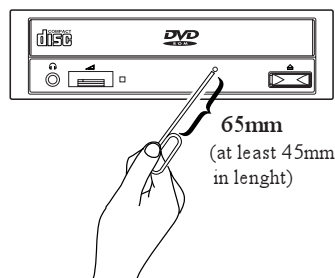
Driver Installation

This DVD-ROM reader is designed to meet the DVD-ROM specification of Microsoft's PC-99. If you are using the DVD-ROM reader with Windows 95 (or later version), WindowsNT or IBM OS/2 Warp, all necessary drivers will be loaded automatically by the operating system.

Note: Drivers mentioned above are part of the Operating Systems and not available from NEC.

To use the IDE/ATAPI DVD-ROM reader with MS-DOS and MS-Windows 3.xx, you have to install the attached driver software before you can use the DVD-ROM reader for the first time. Refer to the README.TXT file on the driver disk for information about installing this driver.

Note: For Windows 3.xx don't use the 32 bit hard disk access, because this mode is not supported for DVD-ROM readers.

Note: To play DVD Videos or DVD Audio on Your PC requires MPEG2 and sound decoding. Additional hardware or software may be required - please contact Your dealer or PC vendor regarding configuration of your PC for this function.

Note: This drive supports RPC according to SFF8090v3 (RPC-2). The final setting/definition of the video region code is determined by the fifth DVD video region code change..

Support

For local support like hotline, service or drivers see the file "README.TXT" on the driver disk or NEC´s Internet site at http://www.neceurope.com

Specifications

DVD-ROM Section

Data Transfer Rate..........	16.2 M bytes/sec (max.)
Access Time	120 msec ($^1/_3$ Stroke read, average)
Compatibility	Single- (4.7 GB) and Dual layer (8.54GB), DVD-R (3.9GBytes)

CD-ROM Section

Data Transfer Rate..........	2550- 6000KBytes/sec (17- 40x)
Access Time	100 msec ($^1/_3$ Stroke read, average)
Hard Error Rate	Below 10^{-12} (After error correction)
Compatibility	High Sierra and ISO9660, CD-ROM XA CD-DA, CD-RW (read), CD-TEXT, Enhanced Music CD (CD+), CD- I (FMV), VideoCD (WhiteBook), PhotoCD (SingleSession/MultiSession)
MPC-Level	MPC-3 compliant

Interface

Burst Transfer Rate	PIO Mode 4/ Ultra DMA33 mode 2 support
Memory Buffer...............	256 KBytes
Interface	IDE/ ATAPI SFF-8090v3 rev. 0.40

Audio Section

Sampling Frequency.......	44.1kHz
Quantifying Bit Number	16-bit linear
Number of Channels	2
Frequency Response	20Hz - 20 kHz +1dB, -5dB
Dynamic Range	80 dB
S/N Ratio	>80 dB
Total Harmonic Distortion ...	0.09%
Wow & Flutter	Below measurable limits (Quartz oscillator precision)
Output	Headphone: 0.7 Volt Line out: 0.75 Volt

General

Power Supply	5 V max. 1.5A, 12 V max. 1.5A
Dimensions (W x H x D)...	14.9 x 4.2 x 20.8 cm
Weight	0.91 kg
Noise	≤ 45 dB(A)
Storage temperature	-20° to 60° C
Storage humidity	30% to 90% RH, noncondensing
Operating temperature....	5° to 45° C
Operating humidity.........	30% to 70% RH, noncondensing

Note: Above specifications are subject to change.

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