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**PLEASE DO NOT SHIP YOUR PRODUCT TO THE COMPANIES** at the addresses listed below for repair without advance contact, for these companies are not repair locations.

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JAPAN AND OTHERS

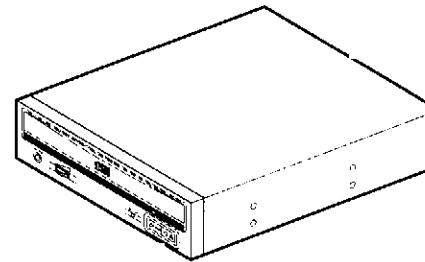
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**PIONEER®**  
The Art of Entertainment

**LaserMemory™**

# DR-U10X

CD-ROM DRIVE UNIT  
LECTEUR DE CD-ROM  
CD-ROM -LAUFWERK  
CD-ROMドライブユニット



**WARNING:** TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Operating instructions  
Mode d'emploi  
Bedienungsanleitung  
取扱説明書

CD-ROM  
disc

English

Français

Deutsch

日本語

**IMPORTANT NOTICE:**  
RECORD THE MODEL NUMBER  
AND SERIAL NUMBER OF THIS  
EQUIPMENT BELOW. THE  
NUMBERS ARE ON THE TOP  
PANEL.

MODEL NO. DR-U10X  
SERIAL NO. \_\_\_\_\_  
KEEP THESE NUMBERS FOR  
FUTURE USE.

## IMPORTANT



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

**CAUTION:**  
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



この取扱説明書はエコマーク認定の再生紙を使用しています。

France : tapez 36 15 PIONEER

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パイオニア株式会社 〒153 東京都目黒区目黒1丁目4番1号

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## A HARDWARE TOUR

Illustrations are provided in this chapter as a visual introduction to the Drive. Please Familiarize yourself with these illustrations and refer to them when necessary to complete the installation and operation of the unit.

### Front View

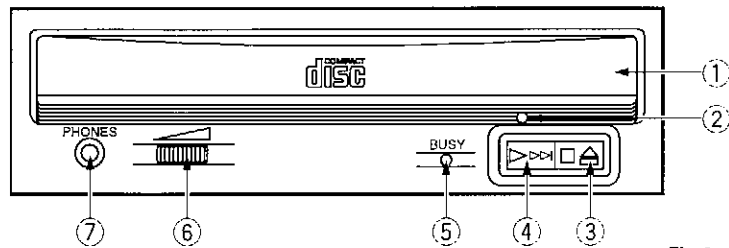


Fig.1

- ① **Disc tray**  
Auto-loading is done with the eject button. Place the CD-ROM onto the tray with the label facing up.
- ② **Hole for forced ejection**  
When the eject button has lost its function, insert a stiff rod into this hole and push to eject the disc tray. Before executing this operation, switch off the power supply of the computer.
- ③ **Eject/Stop button**  
This button is used to move the tray in and out. When this button is pressed once during playback of an audio disc, the playback will be stopped, and when it is pressed in stopped condition, the disc will be ejected.
- ④ **Play/Skip button**  
This is used for direct playback of audio discs. When an audio disc is inserted and this button is pressed, play status will be reached, and when this button is pressed in play status, the playback will skip to the next track. Data discs will not be played back.
- ⑤ **BUSY indicator**  
This flashes during data access.
- ⑥ **Volume Control (headphone level)**  
This is used to adjust the volume level of the headphone jack.
- ⑦ **Headphone jack (PHONES)**  
This is a stereo minijack for headphones.

## A HARDWARE TOUR

### Rear View

The display is on the top panel.

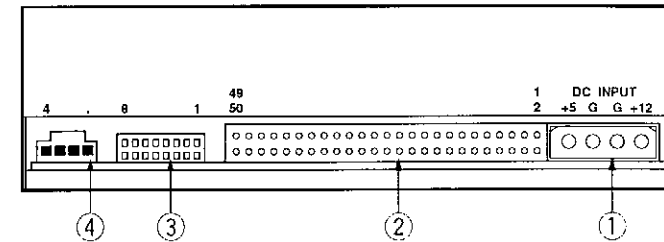


Fig.2

- ① **DC Input**  
This is the input for DC +5 V and +12 V. Connect the computer power supply.
- ② **SCSI interface**  
This is a 50-pin I/O connector according to the SCSI-2 specifications. Use a flat ribbon SCSI connector to connect to the SCSI host adapter.
- ③ **Function switch**  
Use the accessory short-circuit sockets to set the SCSI ID number and the drive function.
- ④ **Audio output**  
This is a connector for analog audio output. As a Molex 70553 is used, please select a suitable connection cable.

# INSTALLATION

## HARDWARE SETUP OVERVIEW

This chapter describes the steps required to connect your Pioneer Drive to your PC. Prior to installation, there are a few things you should know about this product.

- ◆ *First*, the Drive is a SCSI device. What is a SCSI device? SCSI is an acronym for Small Computer System Interface. A SCSI system allows up to seven SCSI devices (including CD-ROM drives, hard disks, scanners, and tape drives) to be connected to each other in a series called a "daisy chain." A SCSI interface is the physical connection between a SCSI device and a computer serving as a pipeline to transfer data between the two.
- ▼ SCSI devices can be installed as an **internal** (inside your computer) device, as an **external** (outside your computer) device, or both. This unit is an internal drive. Once connected, signals are passed through the chain from one device to the next and order is kept by assigning a unique SCSI ID number to each device. The *last* device in a SCSI chain must be terminated to maintain the quality of the electrical signals in the cable.
- ◆ **Second (PCs only): Your System Must Have a SCSI Interface Card.**  
If your system does not have a SCSI interface, you must buy and install one.
- ◆ **Third, Use the Proper Cable.**  
After installing a SCSI interface card or identifying the existing SCSI interface, it must be connected to your Drive using the proper cable.  
A 50-pin flat ribbon cable is used to connect this unit to the computer.  
Connection instructions are given on pages 18, 19.

## SCSI COMPATIBILITY

If your interface card is not listed in the software installation menu, the card may still operate with your Drive. An ASPI\* device driver is included with the Pioneer software which provides an interface between the Drive and a SCSI interface card. The ASPI driver translates the peculiarities of the interface card into a standard interface protocol thus establishing compatibility with the Drive. There is one requirement, the interface card must have a software device driver known as an ASPI Manager.

If you are uncertain whether your card came with an ASPI Manager, check the documentation for the card. If you find that the card didn't come with an ASPI Manager, contact the manufacturer or check with an Authorized Pioneer Dealer to see if a driver is now available.

# INSTALLATION

## INTERFACE CARD RECOMMENDATIONS

Pioneer drivers have been written to work with built-in SCSI port, on PCs with Future Domain SCSI Interface Cards, IBM SCSI Interface Cards, and ASPI compatible interface cards. Other SCSI interface cards require drivers provided by the manufacturer of the card.

## INSTALLING A SCSI INTERFACE CARD IN A PC

SCSI interface card installation instructions accompany the card. For best results, follow the instructions that ship with the card.



**Note:** The SCSI interface card must be properly installed before continuing with the Drive installation.

## SETTING THE SCSI ID

SCSI devices are identified by a SCSI ID number from 0 through 7 with ID number 7 typically reserved for the SCSI interface card. The basic rule for assigning a SCSI ID number requires that: *Each SCSI device have a unique ID number (address) on the SCSI bus. If two SCSI devices are assigned the same ID number, your computer will not operate properly.*

### Assigning a SCSI ID to the Drive if you have a PC:

To avoid conflicts with an existing SCSI device and the interface card, choose an unassigned number in the range of 0-6.

**Tip:**

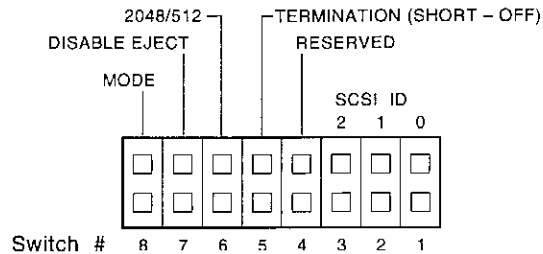
Make list of your SCSI devices and their assigned ID numbers to avoid a SCSI ID conflict.



## INSTALLATION

### Assigning a SCSI ID to the Drive:

- The three SCSI ID setting switches 0, 1, and 2 (#1, #2 and #3) compose a digital switch. Please execute setting according to the following table.  
The jumper is ON when a short-circuit socket is inserted to short-circuit the upper and lower pin, and it is OFF in open condition.  
\*If the personal computer has no other built-in SCSI equipment except this unit, please use the unit with the factory setting (ID No. 2).



Setting switch	SCSI-ID							
	0	1	2*	3	4	5	6	/
0 (LSB) (#1)	OFF	ON	OFF	ON	OFF	ON	OFF	ON
1 (#2)	OFF	OFF	ON	ON	OFF	OFF	ON	ON
2 (MSB) (#3)	OFF	OFF	OFF	OFF	ON	ON	ON	ON

OFF (open) ON (short-circuited) \* The factory setting is for ID No. 2.



**WARNING:**  
DO NOT assign SCSI ID number 7 which is normally reserved for the SCSI interface.

## INSTALLATION

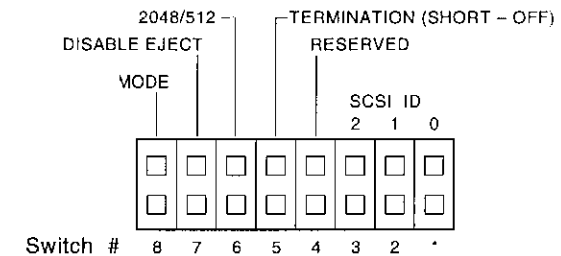
### SCSI TERMINATION

SCSI termination is a technique used to absorb line reflections at the beginning and end of a SCSI daisy chain that would otherwise interfere with legitimate SCSI signals and cause errors. To minimize interference with data transfer, SCSI termination is absolutely required for proper operation of your Drive.

### WHEN TERMINATION IS REQUIRED

If you are installing the Drive as the *only* SCSI device or as the *last* SCSI device in the chain, termination must be enabled.

A built-in terminator switch is located on the rear panel. Function Switch #5 is used to enable or disable termination as described on page 16.



As you can see in the above illustrations, whether you have an ON/OFF Terminator Switch or a Termination Function Switch, your Drive has an **ON/OFF termination** option.

- ON:** The *Terminator Switch* must be open when the drive is:
- the *only* SCSI device connected to an interface card; and/or
  - the *last* physical device in a daisy-chain.
- OFF:** The Terminator Switch must be short-circuited when the drive is:
- connected in the *middle* of a SCSI chain.

### SETTING FUNCTION SWITCHES

Function Switches, also known as Jumper Switches, control the operational functions of the CD-ROM Drive.

The jumper is ON when a short-circuit socket is inserted to short-circuit the upper and lower pin, and it is OFF in open condition.

## INSTALLATION

### SWITCH SETTING TABLE

The display is on the top panel.

#### Switch 4 - Reserved

**MUST BE SET TO OFF (OPEN)**

#### Switch 5: SCSI Terminator

The built-in switch which enables or disables SCSI termination.

Short = SCSI Termination OFF: SCSI termination disabled (factory default setting).

Open = SCSI Termination ON: SCSI termination enabled.

Note: This information is described in detail earlier in this chapter under SCSI Termination on page 15.

#### Switch 6: Default Sector Size

Set the default sector size for the Drive when the drive is ON.

Short = 512-byte sector size (required for some UNIX systems)

Open = 2048-byte (2K) sector size (factory default setting)

For PC systems, the recommended setting is OFF (open). To confirm which sector size should be used in your system, refer to your system documentation.

#### Switch 7 - Disable FRONT Switch

Specifies if the power is ON to the front panel FRONT switch.

Short = Disables the FRONT switch.

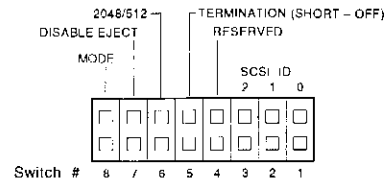
Open = Enables the FRONT switch (factory default setting).

#### Switch 8 - Mode Switch

Set the rotational speed control mode.

Short = CAV

Open = CAV + CLV (Combination mode)



## TO INSTALL THE DRIVE

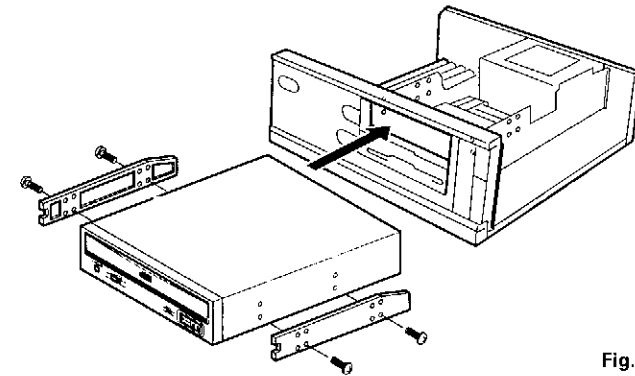


Fig.3

- Switch off the power of the personal computer and remove the cover or the front panel.
- Remove the blank panel installed at the front of the 5.25 inch slot.  
Installation is not possible when there is no empty slot.
- Install the fixation slide rails on the drive. (If slide rails are required, contact the shop where you bought the computer or the computer manufacturer.)
- Insert the drive into the slot.
- If fixing is required, fix the drive according to the instruction manual for the computer.



Use mounting screws with a length of 5 mm or less.  
Use of long screws may damage the drive.



Install the drive after the power supply of the personal computer has been switched off.



The drive installation method differs according to the computer type. For details, please refer to the manuals of your computer.



### WARNING

The short-circuit switches always must be inserted vertically, never horizontally.

## CONNECTING THE DRIVE IN THE MIDDLE OF A SCSI CHAIN

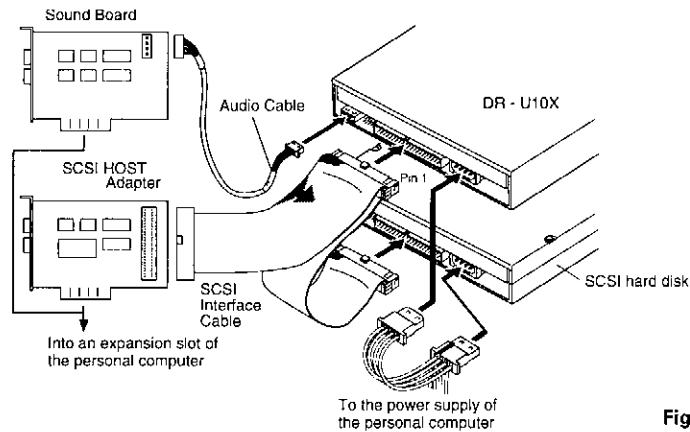


Fig.4

When a SCSI hard disk or other SCSI equipment also is installed in the computer, please connect according to the following method.

- Switch off the power supply of the personal computer.
- Set the SCSI ID number so that it is different from the ID numbers of all other SCSI units.
- Set the termination OFF.
- Connect the power supply cable from the personal computer. At the time of connection, pay attention to the cable polarity. Please use a power supply cable with two or more connectors in parallel.
- Connect the SCSI interface connector. At this time, confirm that the pin 1 of the SCSI connector is connected correctly to pin 1 of the cable. Use a cable with two or more connectors in parallel.
- When a sound board is used, connect the audio output with an audio cable to the sound board.

## CONNECTING THE DRIVE AS THE ONLY SCSI DEVICE

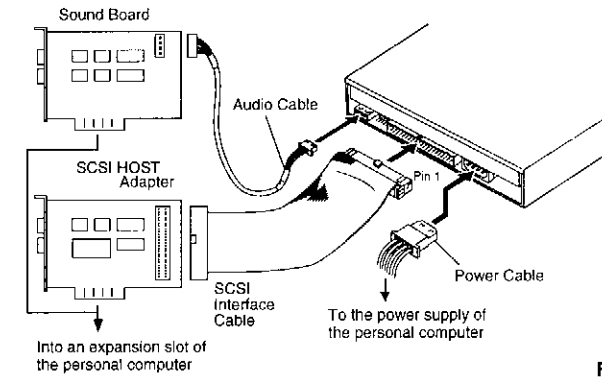


Fig.5

When no SCSI hard disk or other SCSI equipment is used, connect according to the following connection method.

- Switch off the power supply of the personal computer.
- Set the SCSI ID number.
- Set the termination ON.
- Connect the power supply cable from the personal computer. At the time of connection, please pay attention to the cable polarity.
- Connect the SCSI interface cable. At this time, confirm that the pin 1 of the SCSI connector is connected correctly to pin 1 of the cable.
- When a sound board is used, connect the audio output with an audio cable to the sound board.



### WARNING

The power supply of the personal computer always must be switched off before cables are connected.

# SPECIFICATIONS

## [General functions]

Disc diameter	12 cm (4.72 in), 8 cm (3.15 in)
Transfer rate	
Sustained	1215 - 1514 kBytes/sec (at combination mode)
Burst	652 - 1514 kBytes/sec (at CAV mode)
Seek time	10 MBytes/sec
Random (average)	85 ms
Access time	
Random (average)	110 ms
Data buffer capacity	128 kBytes

## [Audio output part]

Line 0.7 Vrms ± 0.1 Vrms (at 10 kΩ load)

## [Others]

Power supply	DC +12 V, 1.0 A (peak), 0.3 A (normal)
(With the built-in terminator)	DC +5 V, 1.8 A (peak), 1.3 A (normal)
External dimensions (except front panel)	146 (W) x 41.3 (H) x 203 (D) mm
	5-3/4 (W) x 1-5/8 (H) x 8 (D) in
Weight	0.9 kg (2lb)
Operation temperature	+ 5°C to +45°C (41°F to 113°F)
Operation humidity	5% to 85% (no condensation)
Storage temperature	- 40°C to +60°C (-40°F to 140°F)
Storage humidity	5% to 90% (no condensation)

## [Accessories]

- Software device drive disk x 1
- Short-circuit socket x 4
- Audio cable x 1
- Mounting screw x 4
- Operating instructions x 1
- Installation instructions x 1

## NOTE:

Specifications and design subject to possible modifications without notice, due to improvements.

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La production de bruits acoustiques est inférieure à 70 dB.  
 (ISO7779/DIN45635)

## ATTENTION

Ce produit renferme une diode à laser d'une catégorie supérieure à 1. Pour garantir une sécurité constante, ne pas retirer les couvercles ni essayer d'accéder à l'intérieur de l'appareil.  
 Pour toute réparation, s'adresser à un personnel qualifié.

L'étiquette d'avertissement suivante apparaît sur votre appareil.

Emplacement: sur le dessus du de couvercle

CLASS 1 LASER PRODUCT  
 LASER KLASSE 1

Dans le cas d'appareils enfichables, la prise doit être facilement accessible et placée le plus près possible de l'appareil.

# TABLE DES MATIERES

COMMENT UTILISER CE MANUEL .....	28
CONFIRMATION DES ACCESSOIRES .....	28
TOUR DU MATERIAL .....	29
INSTALLATION .....	31
POUR INSTALLER LE LECTEUR .....	32
CONNEXION DU LECTEUR AU MILIEU D'UNE CHAINE SCSI .....	33
CONNEXION DU LECTEUR COMME UNIQUE DISPOSITIF SCSI .....	34
OPERATION DES DISQUES .....	35
GUIDE DE DEPANNAGE .....	39
PLACEMENT, SOIN ET NETTOYAGE .....	40
FICHE TECHNIQUE .....	41