

**Pioneer** *sound.vision.soul*

**Introducing the first modular  
professional DVD-Video recorder.**



DVD-VIDEO RECORDER  
**PRV-LX1**

**DVD**  
VIDEO/R/RW



## Key Features of the PRV-LX1

### DVD-Video Disc Production in Real Time

The PRV-LX1 is designed to quickly and easily record video from all professional video sources onto DVD-R or DVD-RW media. Pioneer's real-time hardware VBR • MPEG encoding process provides the highest quality video, based on user-adjustable encoder settings.

### Designed for Video Professionals

The PRV-LX1 is designed to meet the DVD needs of a wide variety of video and post-production environments. The recorder offers multiple analog, digital video and audio signal connections. The PRV-LX1 supports RS-422A and IEEE-1394 external control interfaces for easy integration into existing professional media facilities. Applications include: one-step conversion of video assets to DVD, easy authoring of video projects and archiving video to the highly compatible DVD-Video format. Virtually any application that needs the finished project delivered on a basic DVD-Video disc can be created on the PRV-LX1.

### Internal DVD Authoring Capabilities

#### • Advanced Menu Creation

The PRV-LX1 can create a single DVD-Video Title or Chapter menu with text or image buttons. Thumbnail images are grabbed directly from the recorded video and are placed in the menu buttons. A library of button layouts and menu background graphics are stored on the recorder's internal HDD, which makes it easy to select a unique look and identity for every DVD-Video disc made. User-created menu

background graphics can also be imported and used to further customize a DVD-Video disc.

#### • Navigation Command Settings

This feature gives the user the flexibility to specify exact DVD-Video program execution during playback. The user can choose basic navigation commands to control play back of the disc created on the PRV-LX1, upon "First Play" and at the end of a title.

#### • Custom Chapter Mark Insertion

This feature allows the user to tailor the DVD program to their specific needs and take further advantage of the quick, non-linear access that DVD technology provides. The PRV-LX1 offers four methods to insert chapter marks: automatically at pre-set time intervals, manually on the HDD, "on the fly" during real-time recording or during the Edit Decision List (EDL)/batch capturing process.

#### • Flexibility of Internal HDD

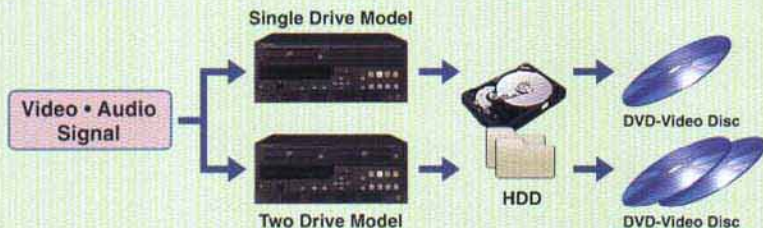
The 120GB internal hard disk drive expands the flexibility and power of the PRV-LX1. The internal HDD is capable of storing over 20 DVD-Video projects, supports several libraries that contain menu backgrounds and button layout files, and Edit Decision List (EDL) text files. The user can perform basic editing functions on the internal HDD to trim VOB files, precisely remove and replace chapter points and reassign title order. Custom menu background files and EDL text files can be imported to the internal HDD library from CD, DVD or through the Ethernet connection on the back of the unit.

## Recording and Copying Options

The standard PRV-LX1 is equipped with one DVD-R/DVD-RW drive and a 120GB internal Hard Disk Drive; a second DVD-R/DVD-RW drive can be added as an optional hardware upgrade. The user can choose to record video and audio to one or both DVD recordable drives or to a DVD-Video project directly on the HDD. Users have the option of recording to all three target drive locations or any combination of the three.

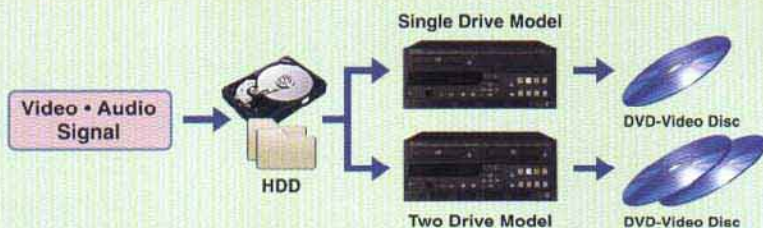
### Direct Recording to Multiple Targets

Content can be recorded directly to DVD-R or DVD-RW media in DVD Drive #1 or optional DVD Drive #2 or directly to the internal HDD. The PRV-LX1 also allows simultaneous recording to any combination of the three target drives. When a project is saved to the internal HDD the user has the ability to customize the project for re-purposing or future use.



### Copying from the HDD to DVD

DVD-Video projects saved on the internal hard disk drive can be copied directly to DVD media in DVD Drive #1 and/or optional DVD Drive #2. The PRV-LX1 takes advantage of 4x writing speed on DVD-R and 2x writing speed on DVD-RW media.



### Copying from DVD to DVD

Making a quick and easy copy of a DVD-Video disc is possible using the PRV-LX1 equipped with two DVD drives. Through a feature in the user interface the master disc is placed in DVD Drive #1 and copied directly to DVD-R or DVD-RW media in DVD Drive #2. This process also takes advantage of faster writing speeds.

Note: The PRV-LX1 has built-in safeguards that prevent copying DVD-Video discs that are encrypted or contain copy protection.



# DVD-VIDEO RECORDER PRV-LX1

The PRV-LX1 offers flexibility and convenience all in one robust machine.

## RECORDING

High performance DVD-Video recording meets the needs of professionals.

The PRV-LX1 was designed with video professionals in mind. The ability to record a DVD-Video disc quickly and easily without the need for a separate computer device or the expense of complex authoring systems, makes the PRV-LX1 a necessity for your business.

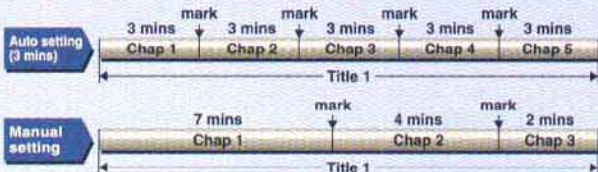
### ■ Encoding

- The PRV-LX1 allows the user to select from 32 different Variable Bit Rate (VBR) settings. This gives the user the flexibility of recording from 1 to 6 hours depending on the selected VBR setting.
- Choose from two audio selections: Dolby Digital and Linear PCM. Users can select the optimum compression rate setting based on recording times.
- Ability to adjust audio levels for recording.
- Selectable black levels for recording.



### ■ Chapter Mark Settings

Users can select either automatic or manual chapter insertion points. The automatic setting allows for 3, 5, 10, 15, 30 and 60-minute increments. The manual setting allows the user to mark chapter points on the fly and as needed.



### ■ Auto Capture

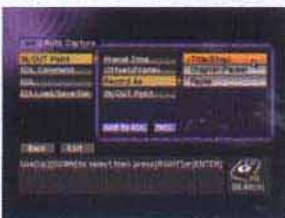
An automatic recording function lets you control a VTR connected via RS-422A, LTC or IEEE-1394 capture video clips by setting the time codes of the In and Out points from the source. By setting the time codes of the In and Out points from the source, the PRV-LX1 uses an EDL (Edit Decision List) that has been prepared or imported\* to automatically prepare a DVD-Video disc. An external device can also control the PRV-LX1.

\* When importing, it is necessary to use the appropriate format.



■ While setting the In/Out points from the video source, the following DVD settings can also be performed:

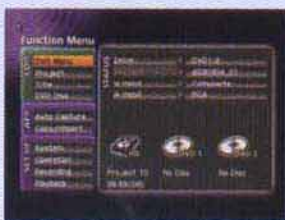
- Video Clips: select as a title or chapter
- Marking chapters based on time code
- Pause recording for source change
- Finalizing the disc



## OPERATION

Specialized designed Graphical User Interface (GUI) makes controlling and recording your project easy.

A specialized Graphical User Interface (GUI) allows you to make formerly complicated recording and authoring settings simple and mistake-free. You can access the user interface buttons on the front panel of the PRV-LX1 or you can connect a standard USB-2 mouse and keyboard to navigate through the user interface. Registering the daily and repetitive operations on your keyboard's function keys allows you to pre-program your common recording and playback tasks and access them with the push of a button.



Main function menu.



F-key function menu.



The GUI can be accessed through the front panel button controls or with a standard USB-2 mouse and keyboard.

## PLAYBACK

### Replay HDD Images

The PRV-LX1 allows users to playback from the internal HDD as well as DVD-Video discs recorded on DVD-R and DVD-RW media.

### ■ Time Shift Playback Function

You can review the content recorded on the internal HDD or your DVD-Video disc while recording. Depending upon the selected encoding rate, the time between engaging the record function and being able to view the content simultaneously will vary.

### ■ Disc Emulation Function

You can simulate play on the internal HDD before preparing to record to DVD Drive #1 or DVD Drive #2.

### ■ Other

Equipped with progressive scan, the PRV-LX1 provides the highest quality images available on DVD.



## AUTHORING

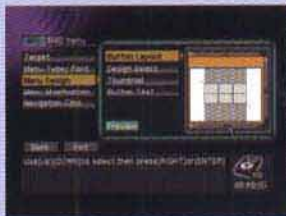
Perform authoring settings, create menus and edit your project.

### Select Menu Type According to Usage

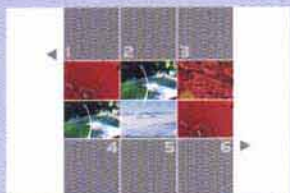
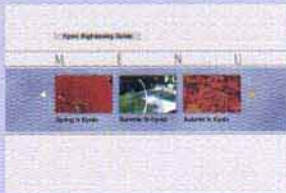
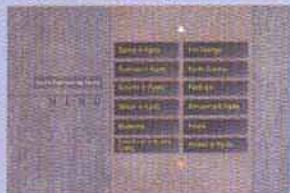
Three menu types are available: title menu, chapter menu, or no menu.

### Variety of Menu Designs

A wide selection of menu designs exist on the internal HDD. This allows you to choose the menus to suit your needs.



### Typical menu design



### Customize Menu Design

#### Change backgrounds

The PRV-LX1 gives you three ways to customize your menu design. You can use a JPEG\* file, BMP\* file, or a clip from your recorded video as background for the menu.  
\*Note: It is necessary to register the image file beforehand in the unit.

#### Select menu type

The user has the option to select thumbnail images, thumbnail & text, text only or sequential numbers for the DVD menu design.

#### Change thumbnail images

You can change the thumbnail images used as menu buttons to any specific video scenes. These images can be selected from the internal HDD within your project file or from unfinalized DVD-R or DVD-RW media recorded on the PRV-LX1.

#### Select the highlight colors of the menu buttons

You can change the highlight color used when selecting or setting buttons on the DVD menu.

### Import Image Files or Edit Decision Lists

You can import and use menu background images (JPEG and BMP), menu designs, and EDLs using CD/DVD media or the Ethernet port.

### Disc Program Settings

#### First Play setting

Setting the first play navigation command allows the user to choose from two options when the finalized DVD-Video disc is played back in a standard DVD player or on a DVD equipped computer.\* Option 1: go to the main menu or Option 2: play the first recorded title on the disc.

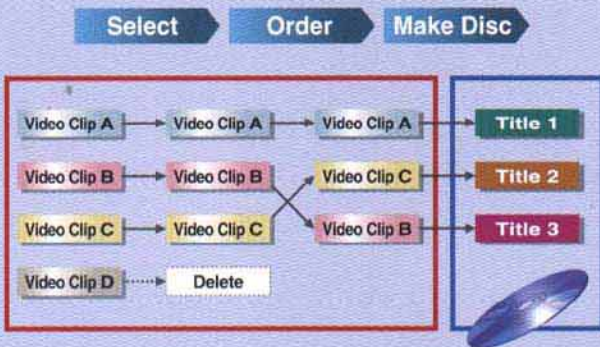
Note: Supporting playback of DVD-R/DVD-RW discs is optional for manufacturers of DVD playback equipment. Some DVD-Video playback equipment does not play DVD-R or DVD-RW discs recorded in the DVD-Video format.

### Title post command setting

You can select from two post navigation commands when programming your DVD-Video disc: return to menu or play next title, which will continuously repeat or loop the content on the disc until interrupted.

### Title Selection

Users can record or change the sequence of titles created from a project on the internal HDD. This allows for further customization of the disc and content.

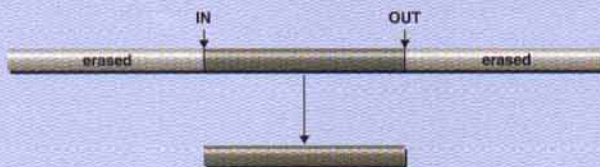


## EDITING

The Internal HDD provides basic video clip editing functions.

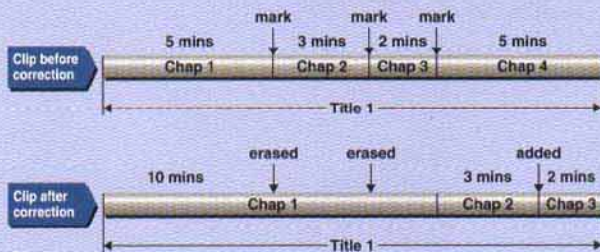
### Copy and Trim Video Clips

New In and Out points from the nearest I frame can be selected to re-purpose video or portions of the video content to new projects on the internal HDD.



### Change Chapter Marks

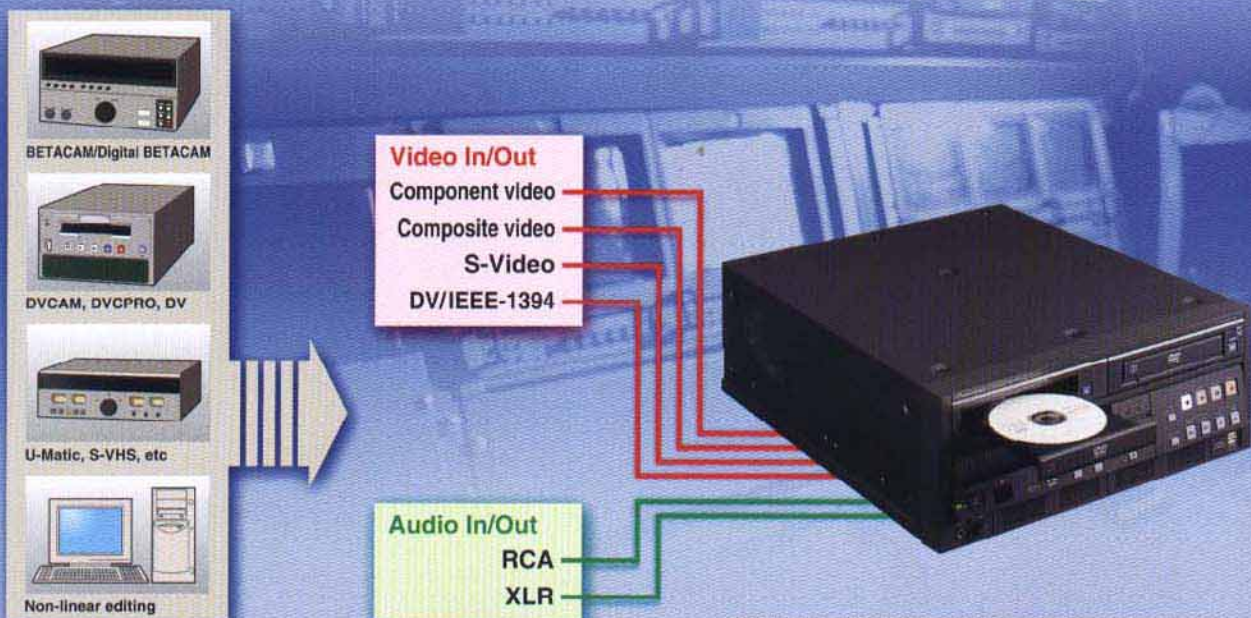
Users can delete or add chapter marks from the nearest I frame on video clips recorded on the internal HDD while previewing them on screen prior to recording to DVD Drive #1 or DVD Drive #2.



# DVD-VIDEO RECORDER PRV-LX1

## INPUT/OUTPUT TERMINALS

An array of professional audio and video inputs and outputs allow connection to many other professional machines.



\* BETACAM, Digital BETACAM, and DVCAM are registered trademarks of Sony.  
\* DVCPRO is a registered trademark of Matsushita Electric.

## CONTROL OPTIONS

Control terminals provide compatibility with existing professional system configurations.

Users can designate the PRV-LX1 as the master or slave within local or remote control systems utilizing the RS-422A and DV/IEEE-1394 interface connections. This allows the PRV-LX1 to act as the recording device in a variety of configurations, such as computer based video systems, Auto Capture from a professional VTR, or with an edit controller.

### System Examples



\*Note: Pioneer cannot guarantee operation with all machines that are equipped with RS-422A or DV/IEEE-1394 terminals.

## PRV-LX1 Main Specifications

<b>General:</b>	Power rating:	AC 120 V, 50/60 Hz	
	Power consumption:	Maximum 2.0 A	
	Power consumption during idling:	6.5 W	
	Weight:	30.4 lb / 13.8 kg	
	External dimensions: (including Fan motor):	16-13/16 (W) x 7-1/16 (H) x 21-1/4 (D) in / 427 (W) x 179.5 (H) x 539.5 (D) mm	
	Ambient temperature during use:	+41°F to +95°F / +5°C to +35°C	
	Ambient humidity during use:	5-85% RH (without condensation)	
<b>Recording:</b>	Recording format:	DVD: DVD-Video HDD: VOB FILE	
	Recordable discs:	DVD-R, DVD-RW	
	Video recording format:	Sampling frequency:	13.5 MHz
		Compression:	MPEG
	Audio recording format:	Sampling frequency:	48 kHz
		Compression format: )	Dolby Digital and Linear PCM (non-compressed)
Recording time	DVD-R/RW (manual rate):	About 1-6 hours	
	HDD (manual rate):	About 23-100 hours	
<b>Playback:</b>	Playable discs:	DVD-Video, DVD-R, DVD-RW (CD-R, CD-RW, and CD-ROM are supported for data read only)	
<b>Video Input:</b>	Composite:	BNC x 1, 1.0 Vp-p, 75 Ω	
	S-VIDEO:	4-pin mini DIN x 1 Y: 1.0 Vp-p, 75 Ω C: 0.286 Vp-p, 75 Ω	
	Component:	BNC x 3 Y: 1.0 Vp-p, 75 Ω B-Y: 0.525/0.7 Vp-p selectable, 75 Ω (with 75% color bar) R-Y: 0.525/0.7 Vp-p selectable, 75 Ω (with 75% color bar)	
<b>Video output:</b>	Composite:	BNC x 1, 1.0 Vp-p, 75 Ω	
	S-VIDEO:	4P mini DIN x 1 Y: 1.0 Vp-p, 75 Ω C: 0.286 Vp-p, 75 Ω	
	Component:	BNC x 3 Y: 1.0 Vp-p, 75 Ω Pb: 0.7 Vp-p, 75 Ω Pr: 0.7 Vp-p, 75 Ω	
<b>Audio Input:</b>	L, R: unbalanced:	Pin jack x 2, 2 Vrms (0 dBfs), 22 kΩ (or more)	
	CH1 (L), CH2 (R): balanced:	XLR (female) x 2, +4 dBu, 600 Ω	
<b>Audio output:</b>	L, R: unbalanced:	Pin jack x 2, 2 Vrms (0 dBfs), 1.5 kΩ (or less)	
	CH1 (L), CH2 (R):	XLR (male) x 2, 0 dBu, 600 Ω load, low-impedance	
	Digital: unbalanced:	Pin jack x 1, 0.5 Vp-p, 75 Ω	
<b>External Sync Input:</b>		BNC x 2, black burst, 0.3 Vp-p, 75 Ω (ON/OFF)	
<b>Other:</b>	DV input/output:	4 pin (i.Link/IEEE 1394 compatible) x 1	
	LTC input:	BNC x 1, 0.5-8 Vp-p, 3 kΩ	
	Remote input:	D-sub 9-pin (female) RS-422A compatible x 1 (Inch threads)	
	Remote output:	D-sub 9-pin (female) RS-422A compatible x 1 (Inch threads)	
	UPS control:	D-sub 9-pin (male) RS-232C compatible x 1 (Inch threads)	
	VGA output:	Mini D-sub 15-pin (female) x 1 (Inch threads)	
	Mouse/keyboard connectors:	4P type A (USB 2.0 compatible) x 4	
	Ethernet:	8P type (IEEE802.3 compatible, category 5) x 1	

### FRONT PANEL

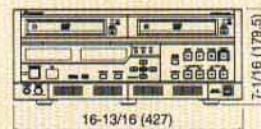
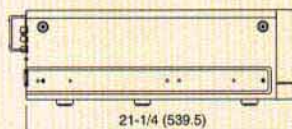
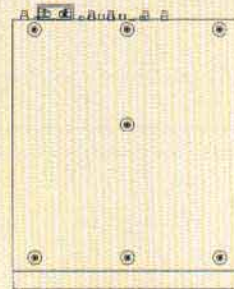


### REAR PANEL



### External Dimensions

unit: inch (mm)



## OPTIONAL WRITER UNIT PRA-DW11



### PRA-DW11 Specifications

<b>Support Disc</b>	Playback	DVD-VIDEO, DVD-R, DVD-RW
	Record	DVD-R (For General), DVD-RW
<b>Speed</b>	Read *1	DVD-R/RW Max. 6x (CAV)
	Record *2	DVD-R Max. 4x (CLV), *3,*4
		DVD-RW Max. 2x (CLV), *5

- \*1. Play speed could vary depending on condition of disc surface.  
 \*2. Writing speed may vary depending upon the physical condition of the media.  
 \*3. Requires 4X DVD-R media.  
 \*4. Must use approved DVD-R media to record in 2X.  
 \*5. Requires 2X DVD-RW media.

### SDI-AES/EBU Boards (optional)

#### SDI-AES/EBU Input Board PRA-BD11

**SDI input:** BNC x 1 (in accordance with SMPTE 259M/272M)  
 525i/625i 4:2:2 component  
 LPCM 48kHz 20bit CH1/2

**AES/EBU input:** BNC x 1 (AES-3 format)  
 75 ohms unbalanced, LPCM 48kHz

#### SDI-AES/EBU Output Board PRA-BD12

**SDI output:** BNC x 1 (in accordance with SMPTE 259M/272M)  
 525i/625i 4:2:2 component  
 LPCM 48kHz 20bit CH1/2

**AES/EBU output:** BNC x 1 (AES-3 format)  
 75 ohms unbalanced, LPCM 48kHz 20bit



This mark indicates compatibility with Pioneer system remote control.



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\*Audio bitstreams created with this system are not intended for distribution on DVDs bearing the Dolby Digital logo. For more information on the use of Dolby trademarks and logos, please contact Dolby Laboratories: www.dolby.com



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#### i.LINK

"i.LINK" and "i.LINK" Logo are trademarks. Can be connected to video DV decks and DV camcorders (some models are not compatible). Cannot be connected to DVD players and AV amplifiers.

#### Recording Equipment and Copyright

Recording equipment should only be used when making lawful copies of content. You are strongly advised to check all applicable laws in your country concerning lawful copying practices and copyright restrictions. Copyrighted material such as films or music is unlawful to copy unless permitted by a legal exception or consented to by the rightowners.

#### Regional Code

DVD players and DVD discs have Regional Code classifications that determine their market area and compatibility. Discs must have matching codes with players to ensure compatibility in playback. This player's regional code is 1.



**DVD** are the standard marks used in conjunction with DVD-RW and DVD-R discs. For recording on a DVD recorder, be sure to use discs bearing one of those marks.

\*For more details, contact one of the addresses below. \*All product names and company names are registered trademarks of their respective owners.

Note: The specifications and design of this product are subject to change without notice.

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