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Thank you for purchasing the Pioneer PRV-LX1. As indicated, Pioneer is providing a System Update that modifies the recorder's Firmware and the operating system (O/S). This document is a description of added or enhanced features provided with each update.

PRV-LX1 System Update
Firmware Version 3.01 and O/S Version 1.04
Description of Additions and Changes

Technical Support Center (800) 421-1613
eMail: LX1-help@pioneer-usa.com

Version 3.01/1.04 contains all earlier version changes plus the following:

- ♦ **PAL Support**
  - PAL/NTSC (TV System) Switching Function
  - PAL/NTSC (TV System) for Playback
  - PAL/NTSC (TV System) for Recording
  - PAL/NTSC (TV System) for Menu

- ♦ **Project Management Modification (GUI)**
  - NTSC – PAL recorded clips begin with the letter P
  - PAL – NTSC recorded clips begin with the letter N

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♦ **Release of Restricted Playback Function**
Built-in DVD playback application from Pioneer

♦ **Remote Control Support for NLE**
Additional RS-422A and IEEE-1394 command support for Non Linear Editors (NLEs)

♦ **Expanded EDL Format**
Entries for auto naming Titles/Chapters and the ability to set encode parameters

♦ **EDL Renaming**
Support to rename EDL files

♦ **VOB File Export**
Allows VOB file exportation through the network connection

♦ **Backup Capability for User Setting to USB HDD**
Add the capability of backing up the User Settings

♦ **Title Repeat Command**
Adds a DVD Menu post command option of Title-Repeat

♦ **Route Menu Capability (Title > Chapter)**
Allows two layer menus, Title Menu(s) with Chapter Menu(s)

♦ **DVD Disc Creation With Introduction and Idle Clip**
Force a disc to automatically play an Introductory Clip

♦ **Improvement of the Default Menu Handling**
Save and Load options added for improved Default Menus

♦ **Improvement of Title (Clip) Name Editing**
Project command added to rename multiple clips at once

♦ **Mouse Wheel Operation and SCAN Speed of RCU**
Scan Forward/Scan Reverse using a wheel mouse

♦ **Divide Clip**
Ability to divide a single clip into two independent clips

♦ **Auto-Stop Feature for Recording**
Unit stops recording when left in Pause for one hour or if the HDD (or DVD) is full

♦ **Eject With Finalization**
Enable disc finalization when the Eject button is pressed

PRV-LX1 System Update Description for Version 2.60/1.03

Version 2.60/1.03 contains all earlier version changes plus the following:

♦ **Lip Sync**
A 2-frame lip sync delay is reduced to less than a frame when recording/encoding Dolby Digital 2-channel audio.

♦ **Playback Bug on DVDs with 18/19 Titles**
DVD-Video discs of 18 or 19 titles created by a PRV-LX1 play correctly.

♦ **Chapter Menu Process**
Optimization of the Chapter Menu authoring process has improved finalization time for DVD discs containing chapter menus.

Previous System Update Description for Version 2.51/1.03

Version 2.51/1.03 contains Version 2.04/1.03 changes plus the following:

♦ **Copy Protection Error**
The PRV-LX1 would some times interpret video white noise on a source tape as copy protection data. It would stop recording and display a copy protection error message. After this update, the unit no longer confuses white noise with copy protection data, eliminating the error.

♦ **Multi-border disc modification**
Support added for playing back multi-border discs

Previous System Update Description for Version 2.04/1.03

♦ **Enable Eject of Non-Finalized DVD-R or DVD-RW Disc**
DVD-R/RW disc(s) recorded on the PRV-LX1 can be ejected without having to finalize the disc. Video/audio material can be added to a non-finalized DVD-R/RW disc as long as that disc has been recorded with the 2.04/1.03 version of the LX1. These discs can be moved between LX1 machines with system software version 2.04/1.03 or

higher. Finalization can occur on any PRV-LX1 recorder containing the 2.04/1.03 version.

Note: Non-finalized DVD-R/RW discs reorded by the PRV-LX1 can only be played in an LX1 recorder.

♦ **Enable Additional Recording to Non-Finalized DVD-R/RW Disc**
PRV-LX1 (ver 2.04/1.03) can record additional titles and append existing content to a non-finalized DVD-R/RW disc.

Note: DVD disc must be finalized in order to play in any other DVD player device other than an LX1 recorder (ver 2.04/1.03).

♦ **Play Non-Finalized DVD-R/RW Disc**
PRV-LX1 recorders with system version 2.04/1.03 or higher can play non-finalized DVD-R/RW discs that have been recorded by the LX1.

♦ **Unfinalize DVD-RW disc**
Note: "Unfinalized" does not equal "Non-Finalized." Unfinalize is the action which removes finalization data from a DVD-RW (rewritable) disc and prepares it for additional recording.
Enable the function to unfinalize a DVD-RW disc recorded by an LX1 with system software 2.04/1.03 or higher.

Note 1: DVD menu settings are lost and default menu setting is applied since disc menu info is not maintained once disc is finalized

Note 2: DVD-RW finalized by a previous LX1 version cannot be unfinalized

Note 3: Blank DVD-RW disc always formats automatically after recording starts.

Note 4: The unfinalization process is not possible if both DVD1 & DVD2 target drives are selected because LX1 cannot accurately determine if two unfinalized discs are exactly the same.

♦ **Improvements to Trimming Video**
Video clips that are recorded to the internal HDD and are greater than 4.7GB can be trimmed by the user to any size.

Previously, video clips recorded to the HDD had to be trimmed to clips size 4.7GB or less (to fit on a DVD). Now the resulting trimmed clip size is dependent on the remaining capacity of the internal HDD. If there is equal to or greater capacity on the HDD, the new clip can be any size.

When the new clip is made, the name of the clip is the old name preceded by an asterisk (*). The user can change the name of the new clip in the GUI by selecting:

Edit->Title->Info/Rename.

Note: If the HDD has 0GB capacity remaining, the source clip must be trimmed to a maximum file size of 4.7GB and the source clip will not be retained and is automatically overwritten.

♦ **AutoCapture Function Control DV cameras**
PRV-LX1 (ver 2.04/1.03) will now support some DV cameras as the source for AutoCapture by the LX1 using the internal EDL feature.

Note: Pioneer cannot guarantee support for all DV cameras, especially consumer level cameras The User should test this feature with their DV camera.

♦ **Create, Save and Copy Multiple Disc Image Files**
Support is enabled to create, save and copy multiple DVD disc images to the LX1 internal HDD.

Note: Image files are stored in the LX1 HDD Library Image Folder and are accessible via FTP through the LX1 ethernet connection.

♦ **Copy Clip or Title (VTS VOB)**
Enable ability to copy clip or title (VTS VOB) data to projects on the LX1 HDD from **(1)** finalized or non-finalized DVD-R/RW disc or **(2)** from the current project to the same project.

Note: Video clip on DVD or HDD must be content originally recorded with the PRV- LX1.

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♦ **Additional Time Intervals (15, 30, 60 minutes) for Auto Chapter insertion**
The user can now select from additional time intervals for auto-chapter insertion. The insertion points can be at 3 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, or 60 minutes.

♦ **Import All Menu Background Graphics and EDL Files**
User can choose to import all properly formatted menu background graphic (.jpg or .bmp) files or EDL (.edl) files from disc or from import directory.

♦ **Improvements and Enhancements to Playback Function**
Playback improvements listed below are only applicable to video content recorded by the PRV-LX1 to DVD media or to the internal HDD and played from the disc, the HDD or in Disc Emulation Mode.

- Frame accurate Timecode searches (CUE) can be acheived via remote control or an external RS-422A or IEEE-1394 command

- Playback scan speed can be changed (to 6X, 12X, 24X, 48X, 96X or 192X) by pushing the SCAN button once every 5 seconds

- Slow-Reverse and Step-Reverse are enabled

- Chapter Repeat can be executed during the last four seconds of a chapter

♦ **On Screen Display (OSD)**
Minor enhancements to the On Screen Display operation have been added.

♦ **Graphical User Interface (GUI) Improvement**
The GUI provides greater information to the user. Additional button selections are available where new features have been added.

♦ **Default Menu Application**
   (*changed from previous versions*)
   Default menu parameters for a DVD project are applied
   when the disc is loaded in the tray. The default menu
   parameters are applied to a HDD project when a new
   project is created on the HDD.

♦ **User Management for Menu Files**

> *Note: When a layout or graphic is currently selected
> and in use for the menu, it cannot be deleted and is not
> displayed in the Delete section of the GUI. The user
> must select another layout or graphic in order to delete
> the file in question.*

   - User can choose to delete factory installed LX1 menu
     button layouts and menu background graphics in HDD
     menu library. User can choose to delete imported custom
     menu background graphics.

   - User can choose to intialize HDD menu Library, in which
     case all imported menu data is deleted. The Library
     returns to the factory installed button layouts and
     background graphics.

♦ **External USB 2.0 HDD Support for Backup, Restore & Delete**
   Functions
   *Note: Linux "ext3" file system is used to format external USB 2.0 HDD.
   A MS-Windows system cannot recognize this file system.*
   Support is enabled for Backup and Restore/Delete functions
   with external USB 2.0 HDD. Controls are available from the
   PRV-LX1's Function Menu. The entire contents of the LX1
   HDD can be backed up or restored. These actions plus
   Delete can be applied to individual folders containing Disc
   Image Files, DVD Menu Library files, Menu Background files
   and/or EDL files. To format the external USB 2.0 HDD,
   follow the directions below:

   1) Press the **Function** button on the front panel.
   2) Select **Set Up** from the main Function menu.
   3) Select **System**.
   4) Select **HDD Tools**.

The USB 2.0 HDD must be formatted before Backup, Restore and Delete functions can be used.

♦ **Optimize the UPS shutdown process during recording**
If the LX1 receives a RS-232 UPS shut-down command during recording, the LX1 stops recording, creates a non-finalized disc, and shuts down. The disc can be treated as a non-finalized disc and content can be added to it.

♦ **Optimize Power-Off Process**
If the PRV-LX1 Standby button is pressed during recording, the unit stops recording then shuts down. The recorded content on the disc will not be lost and it is possible to add further content to the disc then finalize it for playback on other DVD devices.

♦ **Select Action for RS-422A Eject Command**
User can choose to set the PRV-LX1 action when it receives the EJECT RS-422A command: **(1)** automatically finalizes the disc before ejecting it or **(2)** ejects a non-finalized disc.

♦ **General updates**
 - Japanese Font Processor Fix
 - Playback Sync Enable with DV Out
 - Immediate Record/Preview after Encode Rate Change
 - Thumbnail Images for Chapter Buttons remain the same after Clip Trim

♦ **Improvement of Disc Error Recovery During Record**
If a DVD drive error occurs (possible shock or bad media) when recording to the HDD and one or both DVD drives, the recording continues on the HDD and to the error-free drive. When the user stops recording an error message is displayed. However, the recorded video material is retained on both the HDD and the error-free drive. The DVD disc can be treated as a non-finalized disc and content can be added to it.

Note: This recovery is only possible if the HDD and DVD drive(s) are selected as the record targets. This action is not possible if only recording to the DVD drive(s).

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If you have not done so, please register your Pioneer PRV-LX1 immediately so that we can notify you about future updates and upgrades for the PRV-LX1 DVD-Video Recorder. To register on-line, go to the Pioneer website:

www.pioneerelectronics.com

Click on *Product Registration*
then on *Business Products*

If you have any questions, please contact the Sales Engineering and Product Management department at Pioneer Electronics Business Solutions Division.

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