LSC

LIGHT STREAM CONTROLS

User Instructions

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6/03

Introduction: Thank you for purchasing the SD Disk Drive™ from LSC®, the perfect companion to any Show Designer™ controller. The SD Disk Drive™ is a 19" rack mount accessory that allows you to back-up and upload vital information to and from any member of the Show Designer™ family (Show Designer™, Show Designer 1™, or Show Designer 2™). The SD Disk Drive connects directly to a Show Designer and provides a 3.5" floppy disk drive, a PS-2 keyboard jack, a MIDI "IN" port, a MIDI "OUT" port, and two RS-232 jacks. The MIDI connections can be used to connect to other MIDI devices that use MIDI as a method to back-up memory.

Unpacking: Every SD Disk Drive™ has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for any damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return this unit to your dealer without first contacting customer support.

Customer Support: LSC® provides a toll free customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.LightStreamControls.com for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

      Voice: (800) 322-6337   Fax: (323) 582-2610
      E-mail: support@LightStreamControls.com

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact LSC at the toll free number.

At LSC® we are concerned about the environment, and package all our units in recyclable material. Please do not dispose of the shipping carton in the trash, recycle whenever possible.

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet match that of the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit when it's cover is removed.
- Never plug this unit in to a dimmer pack
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged.
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 7 for cleaning details.
- Heat -The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
  A. The power-supply cord or the plug has been damaged.
  B. Objects have fallen, or liquid has been spilled into the appliance.
  C. The appliance has been exposed to rain or water.
  D. The appliance does not appear to operate normally or exhibits a marked change in performance.

The SD Disk Drive™ carries a one year limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain a R.A. number by contacting our customer support team on our toll free customer support number. All packages returned to the service department not displaying a R.A. number on the outside of the package will be returned to the shipper.

Keyboard (Sold Separately): You may use any off the shelf PS-2 Keyboard to name scenes, shows, and other profiles in the Show Designers memory.

Trackball/Mouse (Sold Separately): You may connect any off the shelf mouse or trackball to the SD Disk Drive. This allows you control the pan and tilt movements of a selected fixture on the Show Designer.

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

For permanent installation be sure to mount the drive in a rack and secure the unit to the rack via the built-in rack ears. If the unit is not used in permanent installation be sure to locate the unit on a flat level surface to prevent the unit from accidental tipping.

Connect the included DC9V 1200 mA power supply to the power inlet connection located on the rear of the unit and plug the power supply in to a standard wall outlet.

Using the included serial link cable, connect one end of the cable to the RS-232 output connection on the rear of your particular Show Designer version (SD, SD1, or SD2). If you have a another device already connected to the RS-232 jack on the rear of the Show Designer, remove it for now and put it aside.

If you already had a trackball or mouse connected to your Show Designer or you would like to use one now, connect it to the rear of the SD Disk Drive via the RS-232 appropriately labeled "To Trackball". For more info on using a trackball or mouse see optional accessories.

If you will be using an optional PS-2 Keyboard, connect it now via the keyboard connector appropriately labeled "To Keyboard" on the rear of the disk drive unit. For more info on using a keyboard see optional accessories.

Original Show Designer Firmware Upgrade: If you are using an original Show Designer with a software version prior to version 2.10 you must update the system firmware to accept the SD Disk Drive prior to attempting operation between the two units. If your system software is greater than 2.10 or you are using a Show Designer 1 or Show Designer 2 you may skip this step, if not please follow either of the two steps below (depending on your system software) to allow seamless operation between your Show Designer and the SD Disk Drive. The software version can be found in the LCD immediately upon startup of the Show Designer.

Upgrading Firmware Versions 2.00 - 2.09 - If you are running a software version from 2.00 to 2.09 and you have internet access you can update the firmware through the use of the SD Disk Drive. The following procedures will guide you through the software upgrade.

1) Follow the installation guide lines and connect your SD Disk Drive

to your Show Designer.

2) Download the latest Show Designer software from either the American DJ (www.AmericanDJ.com), Elation (www.ElationLighting.com), or the LSC (www.LightStreamControls.com). The software version must equal version 2.10 or greater to be affective and will down load as "shdsXXX.txt" where XXX represents the software version. *For Example;* software version 2.10 will download as "shds210.txt.**"**

3) Rename the file to "autoload.txt" and copy this file to a blank 3.5" floppy disk. Please note; Windows XP automatically assigns the file suffix ".txt," therefore you do not have to add the file suffix. If you do run into an error while attempting to load the file try removing the ".txt" extension and repeating the process.

4) Be sure power to the Show Designer and the SD Disk Drive is off and insert the floppy disk that contains the renamed show designer file in to the SD Disk Drive.

5) Press and hold down the "Menu" and "Erase" buttons simultaneously while turning on the power to the Show Designer. After the Show Designer has been powered on, the LCD will read "Download new program," you may then release the "Menu" and "Erase" buttons.

Hold down the Show Designer "Menu" and "Erase" to update software

6) With the Show Designer LCD reading "Download new program" and with the floppy containing the "autoload.txt" file inserted into the SD Disk Drive, turn on power to the SD Disk Drive. The new software will automatically begin to load into the Show Designer and the Show Designer LCD will change to "Receiving new program."

If the above procedure does not work, please try the process over and be sure to rename the downloaded Show Designer update file to "autoload.txt." You may also want to try removing the ".txt" file extension and repeating the upload process.

This process must only be completed once. After the software update has been completed the SD Disk Drive can then be accessed directly from the Show Designer and all future updates can be completed through "Update Software" function in the Show Designer's menu.

Upgrading Show Designers with Software Versions 1.00 - 1.11 - For Show Designers running software version 1.00 - 1.11 there is no user update available. Any Show Designer with a firmware version prior to 2.00 must be updated at the factory. If your Show Designer is running software 1.00 - 1.11, please contact customer support to make arrangement to have your unit ship in for a free hardware upgrade that will allow communication between the Show Designer and the SD Disk Drive. After the software and hardware updates have been completed the SD Disk Drive can then be accessed directly from the Show Designer and all future updates can be completed through the "Update Software" function in the Show Designer's menu.

This section will describe in detail how to perform the various operations available between the Show Designer and SD Disk Drive. ***Note:*** *If you are planning on using the SD Disk Drive with an original Show Designer, be sure the Show Designer Software version is at least 2.10. If not you will have to update the software to 2.10 or later to allow proper functionality between the SD Disk Drive and the Show Designer. Please see "Original Show Designer Software Update" in the Setup section at the beginning of this manual.*

Software Update;

This function allows you to update the Show Designers operating system and fixture profiles. To update a Show Designer software;

1) Be sure the SD Disk Drive and Show Designer are turned on and are connected properly as described in the set-up section of this manual.

2) Download the latest Show Designer software file from either the American DJ (www.AmericanDJ.com), Elation (www.ElationLighting.com), or the LSC (www.LightStreamControls.com). The software version must equal version 2.11 or greater to be affective and will down load as "shdsXXX.txt" where XXX represents the software version. For Example; software version 2.11 will download as "shds211.txt."

3) Copy the software update file to a 3.5" floppy disk. When the file transfer is completed, remove the disk from the computer and insert it into the SD Disk Drive.

4) Access the Show Designer menu section and toggle through until you reach the "Update Software" selection. Choose this selection by pressing the "Enter" button on the Show Designer. The new software will automatically begin to load into the Show Designer and the Show Designer LCD will change to "Receiving new program." Please allow some time for the software upgrade to completely load even after the disk drive has stopped spinning. When the software upgrade is completed the Show Designer LCD will change and will display the startup screen in the LCD. The startup screen will then read the new software version completing the software upgrade. Always allow the SD Disk Drive to completely stop spinning before you attempt to remove the disk.

Show Designer Memory Back-Up;

This function allows the user to save the entire Show Designer memory which includes; all settings, scenes, presets, fixture profiles, chases, and shows. Use this function to make back-up files of a Show Designer's memory in the event a Show Designer should fail or to transfer memory into another Show Designer for back-up purposes. To back-up the Show Designer memory:

1) Be sure the SD Disk Drive and Show Designer are turned on and are connected properly as described in the set-up section of this manual.

2) Insert a 3.5" floppy disk into the SD disk Drive.

3) Access the Show Designer menu section and toggle through until you reach the "SAVE MEMORY FILE" selection. Choose this selection by pressing the "Enter" button. You will then be prompted to enter a file name. You may choose the default file name or use the keyboard or Show Designer data wheel to enter a different file name. The file name can be up to eight characters long. The file will be saved as a .txt file and will be DOS compatible as long as you adhere to the DOS file naming structures.

4) After you have chosen a name for your file press the enter button

to automatically begin the saving process. When the saving process is completed the Show Designer LCD will change and will display the startup screen in the LCD. Always allow the SD Disk Drive to completely stop spinning before you attempt to remove the disk.

Show Designer Memory Restore;

This function allows to load a previously stored Show Designer memory file into the same or another Show Designer. Please note that this process will erase the existing memory file in favor of any new file uploaded, so be sure to back-up the existing memory file if you do not wish to loose any pre-existing information. To restore or load a new memory file:

1) Be sure the SD Disk Drive and Show Designer are turned on and are connected properly as described in the set-up section of this manual.

2) Insert the 3.5" floppy disk that stores the Show Designers memory file into the SD disk Drive.

3) Access the Show Designer menu section and toggle through until you reach the "LOAD MEMORY FILE" selection. Choose this selection by pressing the "Enter" button. If the disk contains only one memory file that file will immediately be displayed in the Show Designer's LCD. If the disk contains multiple memory files the first memory file found on the disk will be displayed in the LCD. Use the data wheel or the arrow buttons to scroll through the different file names and locate the memory file you wish to upload into the Show Designer.

4) After you have chosen your file press the enter button a "REPLACE CURRENT MEMORY" confirmation screen will appear in the LCD. Choose the "Yes" button to proceed with the upload or the "no" button to cancel the operation. If you decide to continue with the memory upload a "RECEIVING MEMORY FILE" dialog screen and a file data transfer log will display in the LCD as the file transfer progresses. When the file transfer is completed the Show Designer dialog screen and a file data transfer log will display in the LCD as the file transfer progresses. When the file transfer is completed the Show Designer .

You can use the disk drive to save MIDI system exclusive files from other devices that use MIDI as a memory backup method;

1) Connect MIDI cables from the disk drive unit to the other device and insert a blank disk.

2) Start sending the system exclusive file from the other device. The disk drive should start running.

3) The file will be saved to disk with the file name "midifile.bin".

To send this file back to the other device, prepare the other device to receive;

1) Insert the disk with the file named "midifile.bin" into the disk drive with the **power on the disk drive unit turned off.**

2) Turn on the power to the disk drive unit and the file will be sent to the MIDI connection.

The disk drive always looks for a disk with a file named "midifile.bin" when powering up.

ONE YEAR LIMITED WARRANTY

A. LSC® hereby warrants, to the original purchaser, LSC® products to be free of manufacturing defects in material and workmanship for a period of 1 Year (365 days) from the date of purchase. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the LSC® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, LSC® will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, LSC® shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which LSC® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the LSC® factory unless prior written authorization was issued to purchaser by LSC®; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, LSC® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of LSC® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of LSC®. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. LSC® reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by LSC® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall LSC® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

G. This warranty is the only written warranty applicable to LSC® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

Model:	**SD Disk Drive™**
Voltage:	AC 120v - 60v
Dimensions:	7.25"(L) x 19"(W) x 1.75"(H)
Weight:	5.5 Lbs. / 2.6 Kgs.
Warranty:	1 Year (365 days)

*Supplied by the controller.

Please Note: *Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.*