Backup, store and view all your photos without using a computer

COLORSPACE
UDMA

HYPERDRIVE COLORSPACE UDMA
USER MANUAL

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UDMA

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2.Getting to know the device

Power Switch

Turn on COLORSPACE
Push and hold the power switch for approximately three seconds, or until the startup screen appears.

Turn off COLORSPACE:
Push the power switch lightly and select <Yes>.

Force shutdown of COLORSPACE:
Push and hold the power switch until a "Shutdown in Process" notification appears.

LED Indicator

Steady yellow:
An error has occurred.

Flashing green:
COLORSPACE is processing data
(e.g. data transfer during USB connection, backup of memory card etc.)

CompactFlash (CF) Slot
For insertion of CF memory cards and compatible accessories.

Memory Stick (MS) / Secure Digital (SD) Slot
For insertion of MS and SD memory cards and compatible accessories.

Buttons
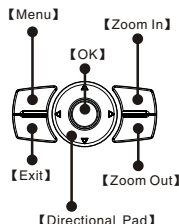
Button	Function
【OK】	Confirm a selection, activate a function or rotate pictures
【Direction Pad】	Navigate pictures and options
【Menu】	Display the menu (when available) for additional functions
【Exit】	Exit the current function and return to the previous screen
【Zoom In】 【Zoom Out】	Zoom in/out of pictures

【Menu】 【Zoom In】 【OK】 【Exit】 【Zoom Out】 【Directional Pad】

LCD Screen

COLORSPACE has a 3.2" LCD screen.

Title Bar:
Indicates the current function

Function Bar:
Operating instructions in the current interface

Title Bar → ← Battery Indicator

Function Bar →

Battery Indicator Status

Icon	Denotes
(full)	Over 75% residual power
(three bars)	60% residual power
(two bars)	30% residual power
(RED)	Insufficient power. Charge the device as soon as possible.
(RED)	Insufficient power. The device may force shutdown any moment.

3. Hard Drive Installation

Removing the back cover:

Remove the two retaining screws (as illustrated below) with the provided screwdriver. Slide the back cover in the direction of the arrow.

Back
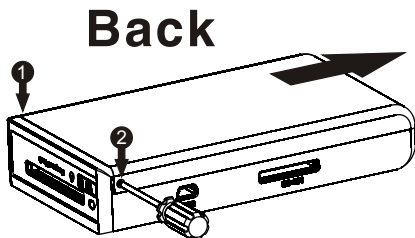
Installing a hard drive:

Push the hard drive firmly into the SATA hard drive socket as illustrated:

Back
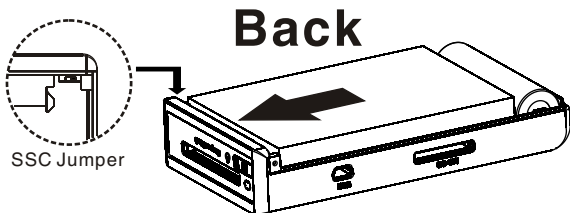
SSC Jumper

SSC jumper:

The SSC (spread spectrum clocking) jumper matches SATA signals between the hard drive and the onboard controller. Depending on your hard drive, you may or may not need to configure it. Refer to "Troubleshooting."

Position	SSC
Left	Disabled
Right	Enabled

4. Battery Charging

Charging the battery with a USB cable:

Power the device off and connect it to a USB power supply (e.g. car charger) or USB port on your computer with a USB cable. Do not connect to a desktop computer frontal USB port or via a USB hub as they may not supply sufficient power.
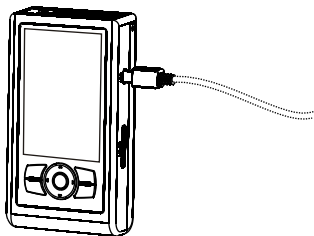
Charging the battery with the provided AC power adapter:

Power off the device and connect it to a wall socket with the provided AC power adapter. If adapters other than those from the original manufacturer are used, ensure that the output power conforms to the requirements. Refer to "Appendix A" for more information.
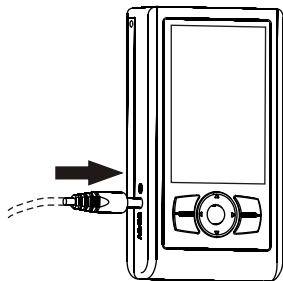
Charging LED Indicator :

Status	Denotes
Constantly on	Charging in process
Switched off	Charging completed and in trickle charging mode
Flashing	Charging malfunction. Refer to "Appendix B".

Chapter II

Photo

COLORSPACE has built-in browser, search and recovery tools that allow you to view/share photos easily and even recover photos that are accidentally deleted.

|| 1. Browser

The built-in photo browser allows you to browse your digital images without using a computer.

Starting the photo browser:
Select <Browser> under <Photo> on the main menu.

Selecting folders to browse:
Select a folder you wish to browse in the Folder Selection window.

Picture Wall:

COLORSPACE will display photos in the selected folder horizontally as thumbnails. Change the highlighted photo with the directional pad.

"R" and "J" marks:
R: The photo contains RAW format data.
J: The photo contains JPEG format data.

Changing thumbnail size:
In the Photo Wall, use the 【Zoom In】 and 【Zoom Out】 buttons to change the size of the thumbnails.

Viewing photos full-screen: In the Photo Wall, highlight a picture and press 【Ok】.

Navigating photos:
　　【Direction】 button Left: the previous photo
　　【Direction】 button Right: the next photo

Rotating a photo:
　　Every time you press the 【Ok】 button, the photo will rotate 90 degrees and automatically adjust to fit the screen.

Zooming in/out of the photo:

Press 【Zoom In】to zoom in and 【Zoom Out】to zoom out. You can zoom in 1:8, 1:4 and 1:1. To fit the photo to screen, press 【Zoom Out】 repeatedly or press 【Exit】once.

Changing photo display area:

Use the directional pad to move and change the display area of an enlarged photo.

Displaying photo brief EXIF information:

While viewing a photo full-screen, press Up on the directional pad to open and close the EXIF brief, or press 【Menu】and select <EXIF >⇨ <Brief>.
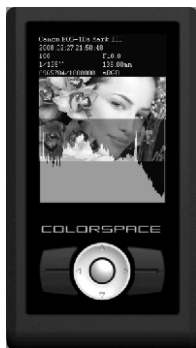
Displaying photo histogram:

While viewing a photo full-screen, press 【Menu】and select <Histogram>⇨

Select	Function
Close	Display no histogram
Red	Display red component histogram
Green	Display green component histogram
Blue	Display blue component histogram
Lum	Display photo luminance (brightness) histogram

Press Down on the directional pad to toggle (open/close) the histogram display.

|| 2. Search

COLORSPACE allows you to quickly search and browse photos by EXIF date.

Searching for photos:

1. If you wish to search a memory card, insert it.

2. Select <Photo>⇨ <Search>.

3. Select what you wish to search: the hard drive or a memory card.

4. Use the directional pad to input a year and month.

5. Press 【Ok】 to search for photos from said year and month.

6. Press 【Exit】 to cancel the search.

7. After the search is complete, press 【Ok】 to browse the photos retrieved.

3. Recover

The Recover function can recover photos that are accidentally deleted from a memory card.

You can recover deleted photos in the following formats:

Camera	Format
Canon	CR2,TIF,CRW
NIKON	NEF
PENTAX	DNG,PEF
SAMSUNG	PEF
RICOH	DNG
SONY	SR2,ARW
OLYMPUS	ORF
PANASONIC	RAW
MAMIYA	MEF

(*Please visit www.hyperdrive.com for the latest list of recoverable Formats)

The Recover function CANNOT recover:
- deleted photos on cards you have since overwritten with newer data

- photo data that are fragmented

- photos on the hard drive

- photos in non-supported formats

- the memory card's folder structure

II

Recovering photo:

1. Insert a memory card in the device.
2. Select <Photo>⇨ <Recover>.
3. Select the memory card you inserted. Recovery will begin. You can cancel recovery anytime by pressing【Exit】.

During recovery, a thumbnail of the photo currently being recovered appears on screen.

Recovered photos are stored in partition C of the hard drive in a folder named "RECVxxxx" where "xxxx" is an incremental number that increases with each recovery attempt.

Browsing recovered pictures:

After recovery is complete, press 【OK】 and you can browse the recovered photos. You can also browse the recovered photos by selecting <Photo>⇨ <Browser> from the main menu and opening the "RECVxxxx" folder.

Chapter III

Backup

COLORSPACE UDMA uses advanced parallel processing technology to tremendously increase memory card backup speed.

III 1. Full Backup

The Full Backup function copies all files and folders on a memory card to the hard drive. It maintains the directory structure of the source card.

The Full Backup function CANNOT:

- backup memory card labels or system files data (e.g. Windows OS Recycle Bin)

- backup memory cards with a FAT12 file system

- backup memory cards with capacities of 64MB or less.

Backing up memory cards:

Insert a memory card and select <Full Backup> on the main menu.

Backing up multiple memory cards:

To backup multiple memory cards of the same type, after one finishes backing up, insert another and select <Full Backup> on the main menu.

To backup multiple memory cards of different types, insert both cards and select <Full Backup> on the main menu. The device will ask you which card you would like to backup first. Select one. After the selected card finishes backing up, select <Full Backup> again and select the other card.

Viewing data

After a successful backup, you can press 【Ok】 button to browse the photos you have just backed up.

To view other non-photo data, refer to relevant sections of "File Manager".

III 2. **Incremental Backup**

Incremental Backup reduces duplicate data by only backing up newly added data on a previously backed up memory card.

With the function, you can:
- copy the new memory card data to the last successful backup folder (created by either Full Backup or Incremental Backup).

- copy the new memory card data to any existing folder.

The Incremental Backup function CANNOT:
- backup memory card labels or system files data

- backup memory cards with a FAT12 file system

- backup different files with the same name

- backup incrementally from the hard drive to a memory card

- backup to an empty folder

Incrementally backing up memory cards:
Insert a memory card and select <Incremental Backup> on the main menu. Confirm the destination folder and select <Backup>.

Changing the incremental backup destination folder:

Select <Incremental Backup> on the main menu. In the Incremental Backup window, select <Select> and select a destination folder.

III **3. Backup Setup**

Changing File Verification Mode:

Under <Backup> on the main menu, select <Backup Setup> ⇨ <Verify>.

Real-Time Verify:

● performs CRC (Cyclic Redundancy Check) data verification as files copy

● retries verification upon discovery of an error, reports an error if the retry fails

● does not affect copying speed

The following hardware supports real-time verification: SATA hard drives, UDMA CF cards, SD cards, MMC cards and MS cards.

Verify HDD:

● records CRC checksums of each copied file and compares with file checksums on the hard drive

● prevents data corruption and loss due to bad sectors on the hard drive

● can affect copying speed, depending on the read speed of the hard drive

Verify Card:

● records CRC checksums of each copied file and compares with file checksums on the card

● detects data errors on memory cards

● can affect copying speed, depending on the read speed of the card

Changing Backup Speed:

Under <Backup> on the main menu, select <Backup Setup>⇨ <Speed>.

Hyper Speed:
● uses the hard drive's normal operating speed

● updates copy progress after a file is copied

● averages 16MB/sec (may be slower when you are copying a huge quantity of small files)

UDMA66 Speed:
● uses the hard drive's ultra fast operating speed

● updates copy progress at one second intervals

● averages 30~40MB/sec (may be slower if you backup non-UDMA CF cards, activate verification or copy preview, or if battery power or ambient temperature is low.

III

Changing Folder Name:

To change the backup folder name from "COLOR" to something else, under <Backup> on the main menu, select <Backup Setup> ⇨ <Folder>.

Visual Backup

Visual backup lets you preview a photo as it copies over.

Turning On/Off visual copying:
Under <Backup> on the main menu, select <Backup Setup> ⇨ <Visual> and select/deselect <Disable Preview>.

Selecting display mode of preview picture:
Under <Backup> on the main menu, select <Backup Setup>⇨ <Visual>, select <Preview Style> on the menu and select your favorite mode:

Tile : Preview photos gradually tile the screen from left to right, top the bottom.

Single: Preview just the photo that is currently being copied over in the center of the screen.

Changing preview picture sizes:
Under <Backup> on the main menu, select <Backup Setup> ⇨ <Visual> and select <Preview Size>. Choose from the following sizes:

Large: 80 pixels x 80 pixels

Medium: 60 pixels x 60 pixels

Small: 40 pixels x 40 pixels

Changing the source of preview photo:

Under <Backup> on the main menu, select <Backup Setup > ⇨ <Visual> select <Preview Source> and select a preview source.

Card: COLORSPACE reads preview photo data from the memory card while copying.

HDD: COLORSPACE reads preview photo data from its hard drive after copying.

Because COLORSPACE have to pause backup while it is reading the preview photo data from the hard drive, the overall backup speed will greatly decrease.

Backing up to a designated folder:
Under <Backup> on the main menu, select <Backup Setup> ⇨ <Path> press 【OK】 and select a different folder.

Chapter IV

Functions

IV 1. **File Manager**

With the File Manager, you can perform file/folder operations (e.g. copy, cut, paste, delete etc.) without going through a computer.

Starting File Manager:
Under <Function> on the main menu, select <File Manager>.

Selecting a single file or folder:
Use the Up or Down【Direction】buttons to highlight a file or folder. If you wish to enter a folder, press the Right 【Direction】button.

Selecting multiple files or folders:
Highlight a file or folder and press 【Ok】 to select it. A checkmark ⊘ will appears beside the selected file or folder. Select all the files and folders you wish to batch process and press 【Menu】 to select a function. Note that you can only select files/folders in the same folder and not across different folders. If you select across different folders, only the current folder items are selected.

Copying/moving a file or folder:
Highlight the file or folder you wish to copy, press【Menu】and select <Copy>. Open the destination folder, press【Menu】and select <Paste>. If you wish to move the item instead of copying it, select <Cut> instead of <Copy>.

Deleting a file or folder:

Highlight the file or folder you wish to delete, press 【Menu】and select <Delete>.

Sorting the list of files:

Press the 【Menu】, select <Sort> and select a sorting mode.

Creating a new folder:

Browse to where you wish to create a new folder, press 【Menu】and select <New Folder>. Type a folder name with the virtual keyboard and select <Ok>.

Renaming a file or folder:

Highlight the file or folder you wish to rename, press 【Menu】and select <Rename>. Rename the file or folder with the virtual keyboard and select <Ok>.

IV **2. Creating Thumbs**

Creating thumbnails or "thumbs" of JPEG photos will help to speed up the browsing of such photos on the COLORSPACE, To batch create thumbnails of photos, select <Create Thumbs> under "Function" on the main menu and select a folder containing photo files. You can only create thumbnails of JPEG photos.

3. USB Connection

1. Connect COLORSPACE to a USB port on your computer with the provided USB cable. Do not connect via a frontal USB port or via a USB hub.

2. Select <USB> under <Functions> on the main menu.

3. Access COLORSPACE as a local disk.

The function enables you to:
● access data on the COLORSPACE hard drive

Note:
● You should connect the device to the AC adapter when transferring large amounts of data. This is because during data transfer, the device will consume more power than the USB port is able to provide (i.e. 500mA) and additional power is drawn from the internal battery. If the AC adapter is not connected, the battery will eventually be exhausted and the device will shut down automatically. This is not a malfunction.

● The device does not function as a card reader. Hence you cannot access the memory card via USB.

4. Slide Show

To view a folder's contents as a slide show, select <Slide Show> under <Functions> on the main menu and select a folder containing photos.

5. Customized Scripts

COLORSPACE UDMA supports user programmable scripts that can add new specialized features or customize existing functions.

For more information, refer to the online SDL Script Language Reference Manual at www.hyperdrive.com

IV **6. Firmware Updates**

Firmware updates enhance various functions and repair system bugs.

You cannot update firmware when battery power is low.

Copying firmware file to internal flash chip:

1. Download the latest firmware file from www.hyperdrive.com. You may need to unzip to obtain the firmware file (with .SEF extension).

2. Copy the firmware file (with .SEF extension) onto a memory card or the internal hard drive. If a memory card is used, insert it into the corresponding slot.

3. Select <Firmware Updates> under "Function" on the main menu.

4. Locate and select the firmware file on the memory card or hard drive.

5. After firmware update is completed, restart device to apply new firmware.

Chapter V

Tools

V 1. Hard Drive Tools

Viewing hard drive capacity and S.M.A.R.T. information:

S.M.A.R.T. stands for Self-Monitoring, Analysis Reporting Technology. It detects and records predictable mechanical hard drive malfunctions, which account for the majority of hard drive malfunctions. S.M.A.R.T. can issue malfunction warnings to prevent data loss.

Under <Tools> on the main menu, select <Hard Drive> -> <Info> to see the hard drive's usage and remaining storage capacity. Press【OK】to show S.M.A.R.T. information and toggle between the two Info screens.

Formatting the hard drive:

1. Make sure that you installed the hard drive properly. Refer to earlier section of "Hard Drive Installation" if necessary.

2. Under <Tools> on the main menu, select <Hard Drive> ⇨ <Format>.

3. Confirm the hard drive information and select <Format>.

4. Confirm (twice) that you wish to format the hard drive and select the number of partitions. Partitions are evenly allotted (e.g. a 120GB hard drive with three partitions will have C, D and E partitions of approximately 40GB each).

5. Restart device after formatting is completed.

Testing the performance of the hard drive:

To test the maximum, minimum and average read speeds that the hard drive can achieve in the device, under <Tools> on the main menu, select <Hard Drive> ⇨ <Benchmark>. Press any button to exit testing.

Test do not show actual read and write speeds during backup and USB transfers.

V 2. Memory Card Tools

Testing the performance of a memory card:
You can test the maximum, minimum and average read speeds that CF, MS, MMC and SD memory cards can achieve in the device.

To do so, insert a memory card and, under <Tools> on the main menu, select <Memory Card>⇨ <Benchmark>. Press any button to exit testing.

Test do not show actual read and write speeds during backup.

Erasing memory card:
To delete all data on a CF, MS, MMS or SD memory card, insert a card you wish to erase and, under <Tools> on the main menu, select <Memory Card>⇨ <Erase>.

You cannot erase unformatted cards or cards formatted to FAT12.

Chapter VI

Setup

<u>VI</u> 1. Interface Setup

Changing the color of the system interface:

Under <Setup> on the main menu, select <Interface>⇨ <Color>. select a color with the directional pad and press 【Ok】 .

Customizing the wallpaper:

Under <Setup> on the main menu, select <Interface> ⇨ <Wallpaper> and select an image file.

2. Backlight Setup

Changing the automatic shutdown time of the backlight:

Shutdown time refers to the elapsed time while the device is idle, after which the LCD backlight will turn off.

Under <Setup> on the main menu, select <Backlight Setting>⇨ <Off Time>, designate a shutdown time with the directional pad and press 【Ok】 .

Reducing the automatic shutdown time prolongs battery life.

Changing the brightness of the backlight:

Under <Setup> on the main menu, select <Backlight Setting> ⇨ <Brightness>, designate a brightness level with the directional pad and press 【Ok】 .

Reducing the brightness prolongs battery life.

3. Language Setup

COLORSPACE supports multiple languages. To change the language, select <Language> under <Setup> on the main menu.

Changing languages may change character sets and thus alter names of existing files.

4. Key Sound
Turning the key sound on/off:

Under <Setup> on the main menu, select <Key Sound>, toggle the key sound with the directional pad and press 【Ok】.

5. Reset
Restoring factory settings:
You can clear ALL user-defined settings by selecting <Reset> under <Setup> on the main menu, wait for the reset confirmation and then exit.

6. Firmware Version
To check which version of firmware your device is running, select <System Information> under <Setup> on the main menu.

Appendix A: Safety

※ Do not use the device in a moist environment. Do you handle the device with wet hands. If liquid enters the device, immediately remove the battery, power off the device and return it to a dealer for repair. A device that's corroded by liquid may short circuit the battery and cause fire.

※ Do not place the device near heavily magnetized objects. Data may be lost.

※ Do not insert incompatible memory cards or foreign matter in card slots.

※ Do not dismantle or modify the casing or circuit board.

※ Carefully remove the battery and power off the device if it produces an odd smell, extreme heat or smoke.

※ If you're not charging the device with the provided AC charger, make sure that your charger has a output of 5V/1A.

※ While charging, the battery heats up. Charge the battery in a ventilated area.

※ Power off the device before opening the back cover.

※ Power off the device before inserting or removing a hard drive.

Appendix B: Operation Techniques and Troubleshooting

1. Operation techniques

 ※ Prior to an important shoot, charge the device (in the power off mode) in advance and test drive the device.
 ※ Use high speed memory card to achieve ideal backup speed.
 ※ Update the firmware to the latest version regularly.

2. Troubleshooting

The unit won't start

 ※ Charge the battery.

 ※ Store the device someplace with a temperature between 5-45℃.

Copying fails

 ※ Select <Tools>⇨ <Hard Drive>⇨ < Info> and check that sufficient hard drive space is available. If you partitioned the hard drive, select <Backup>⇨ <Backup Setup>⇨ <Path> and select a partition with free space.
 ※ Select <Tools>⇨ <Hard Drive>⇨ < Info> and press 【Ok】 to pull up S.M.A.R.T. information. Check to see if the hard drive has overheated or got corrupted.

 ※ Restore factory settings.

 ※ Charge the battery.

 ※ Confirm the memory card is compatible.

 ※ Toggle the SSC jumper.

Unit crashed or unresponsive button(s)

 ※ Press and hold the power button for approximately 15 seconds, or until a shutdown notification appears.

 ※ Open the back cover, remove the battery and pop it back in.

3. Replacing and installing a battery
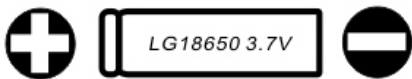
Do not replace or install a battery unless necessary. Consult your dealer or customer service before doing so.
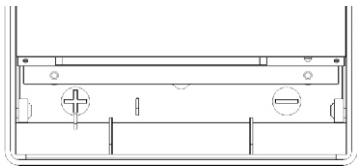
Removing the battery

1. Open the back cover of the unit. Refer to "Hard Drive Installation" if necessary.

2. Carefully remove the battery. It may be hot.

Installing a battery

1. Align the polarity as illustrated:

2. Install the battery in firmly.

3. Replace the back cover.

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