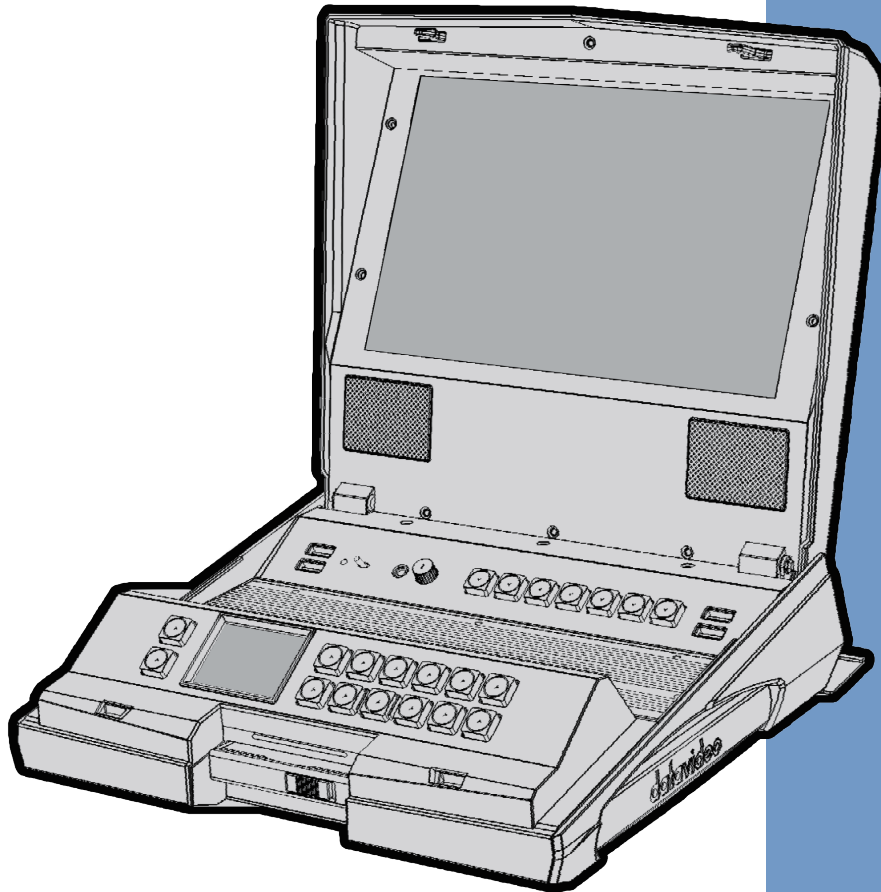


# datavideo



**FIELDSIDE HAND  
CARRY RECORDER  
HRS-30**

**Instruction Manual**

[www.datavideo.com](http://www.datavideo.com)

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### **Disclaimer of Product and Services**

The information offered in this instruction manual is intended as a guide only. At all times, Datavideo Technologies will try to give correct, complete and suitable information. However, Datavideo Technologies cannot exclude that some information in this manual, from time to time, may not be correct or may be incomplete. This manual may contain typing errors, omissions or incorrect information. Datavideo Technologies always recommend that you double check the information in this document for accuracy before making any purchase decision or using the product. Datavideo Technologies is not responsible for any omissions or errors, or for any subsequent loss or damage caused by using the information contained within this manual. Further advice on the content of this manual or on the product can be obtained by contacting your local Datavideo Office or dealer.

## FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Warnings and Precautions



1. Read all of these warnings and save them for later reference.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.
9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord rating.
10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.
12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:

- a. When the power cord is damaged or frayed;
- b. When liquid has spilled into the unit;
- c. When the product has been exposed to rain or water;
- d. When the product does not operate normally under normal operating conditions.  
Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
- e. When the product has been dropped or the cabinet has been damaged;
- f. When the product exhibits a distinct change in performance, indicating a need for service.

## **Warranty**

### ***Standard Warranty***

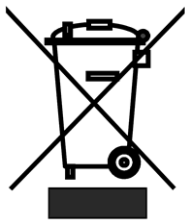
- Datavideo equipment are guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- The product warranty period begins on the purchase date. If the purchase date is unknown, the product warranty period begins on the thirtieth day after shipment from a Datavideo office.
- All non-Datavideo manufactured products (product without Datavideo logo) have only one year warranty from the date of purchase.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered under warranty.
- Viruses and malware infections on the computer systems are not covered under warranty.
- Any errors that are caused by unauthorized third-party software installations, which are not required by our computer systems, are not covered under warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- All accessories including headphones, cables, and batteries are not covered under warranty.
- Warranty only valid in the country or region of purchase.
- Your statutory rights are not affected.

## Three Year Warranty

- All Datavideo products purchased after July 1st, 2017 are qualified for a free two years extension to the standard warranty, providing the product is registered with Datavideo within 30 days of purchase.
- Certain parts with limited lifetime expectancy such as LCD panels, DVD drives, Hard Drive, Solid State Drive, SD Card, USB Thumb Drive, Lighting, Camera module, PCIe Card are covered for 1 year.
- The three-year warranty must be registered on Datavideo's official website or with your local Datavideo office or one of its authorized distributors within 30 days of purchase.



## Disposal



### For EU Customers only - WEEE Marking

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

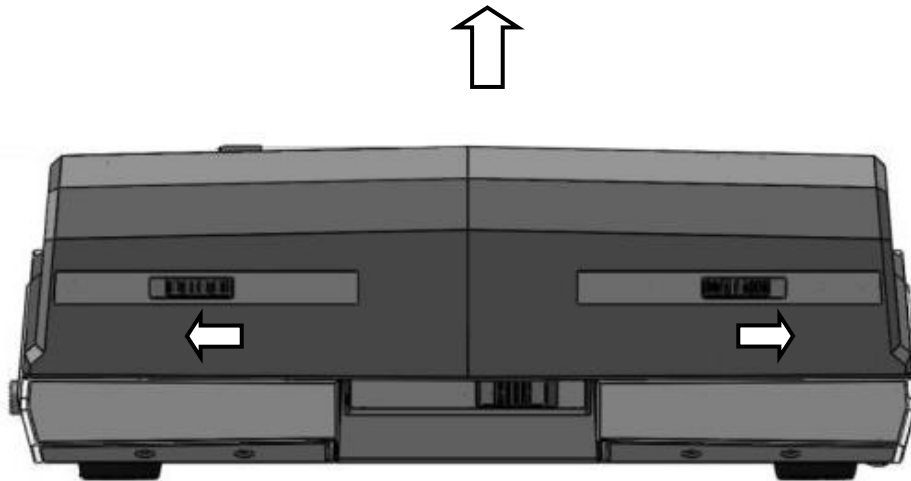


**CE Marking** is the symbol as shown on the left of this page. The letters "CE" are the abbreviation of French phrase "Conformité Européene" which literally means "European Conformity". The term initially used was "EC Mark" and it was officially replaced by "CE Marking" in the Directive 93/68/EEC in 1993. "CE Marking" is now used in all EU official documents.

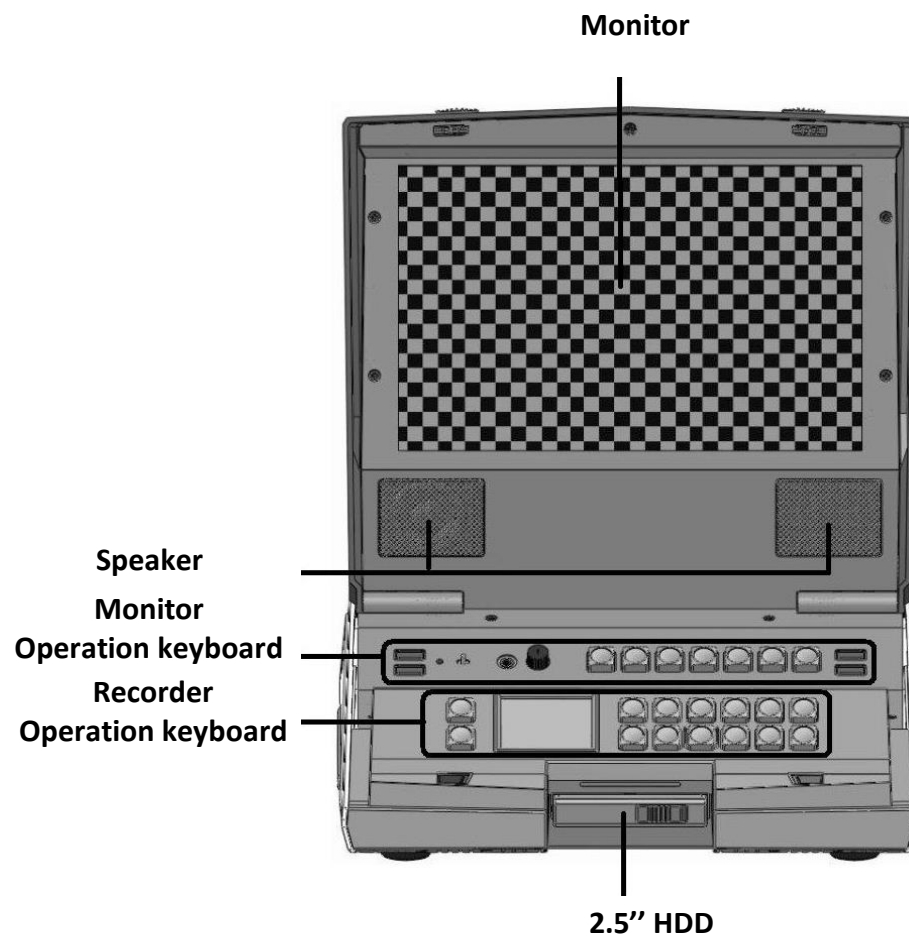
## Unpacking the HRS-30

Place the HRS-30 on a level desk or surface. The carry handle will be on the right side facing the operator's position.

To open the HRS-30 monitor lid, slide the thumb catches in the direction shown to their outer most position. Then lift the monitor lid upwards away from the keyboard and carry handle.



*Top View*

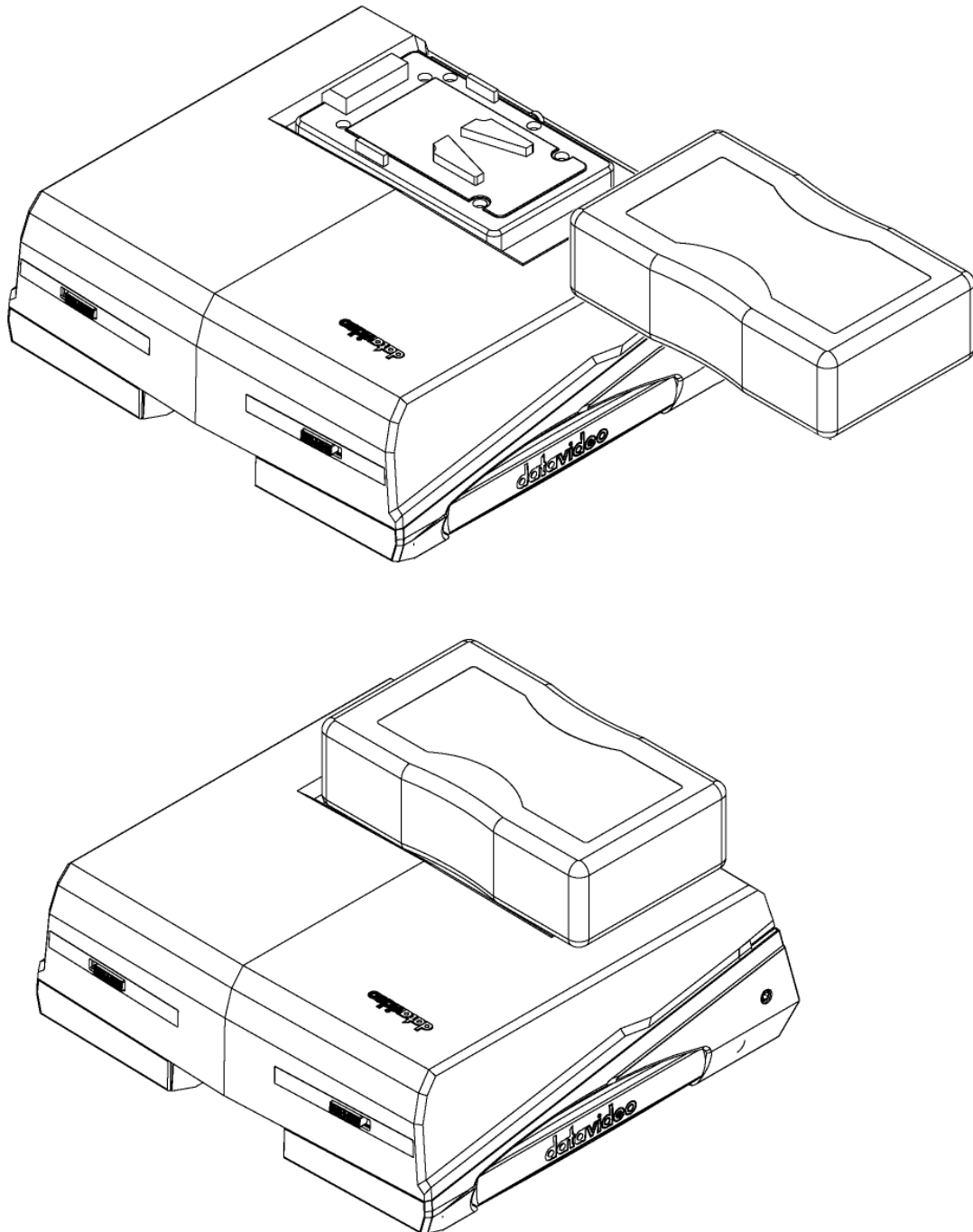


## **Battery**

The HRS-30 can be powered from a standard V-Mount battery connection or mains power. This enables you to power the HRS-30 using an existing camera battery.

**Note:** Use a 96 Watt-Hour V-Mount battery which will be able to last for five hours if you prefer to record and view the video at the same time (screen at default brightness).

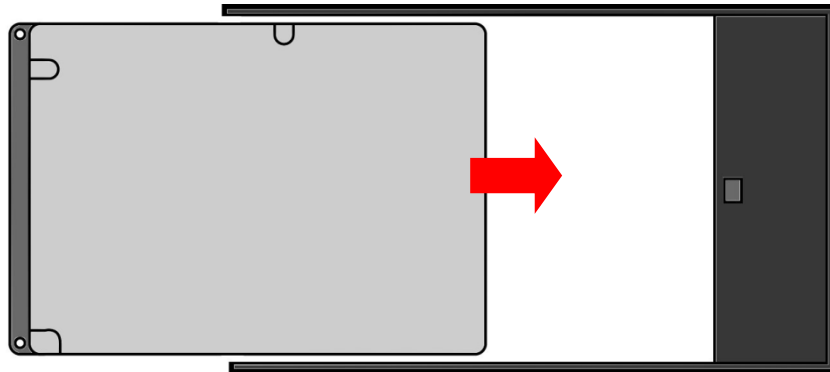
### **V-mount Battery Plate**



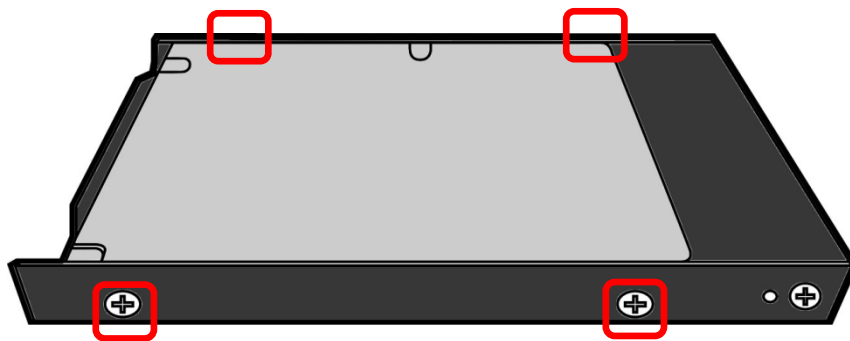


## ***Assemble 2.5" Hard Disk Drive***

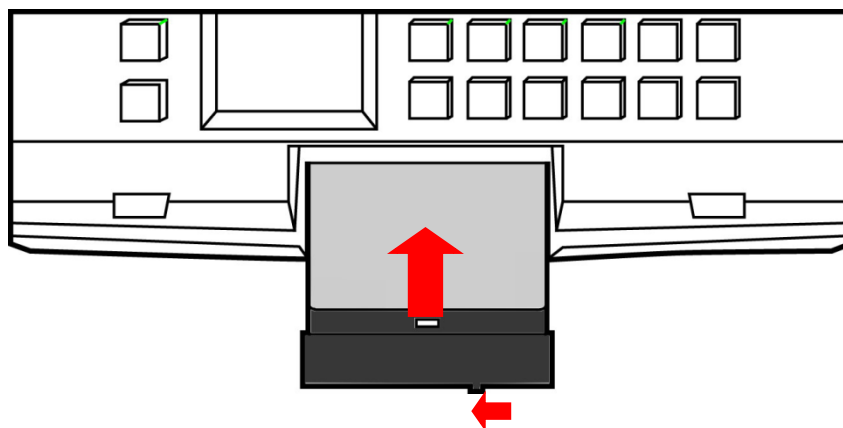
**Step 1. Insert the 2.5" HDD into the disk enclosure.**



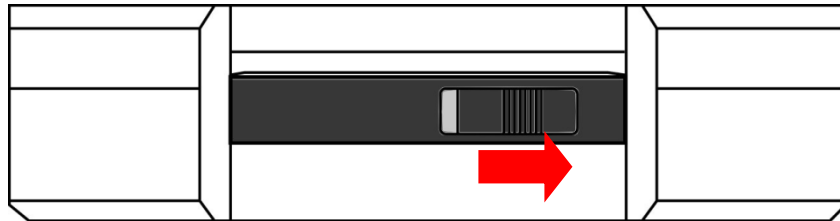
**Step 2. Assemble four screws to fasten 2.5" HDD in the disk enclosure.**



**Step 3. Push the slide switch to the Left and then push the disk enclosure into the HRS-30.**



**Step 4.** Push the slide switch to the right to lock the disk enclosure.

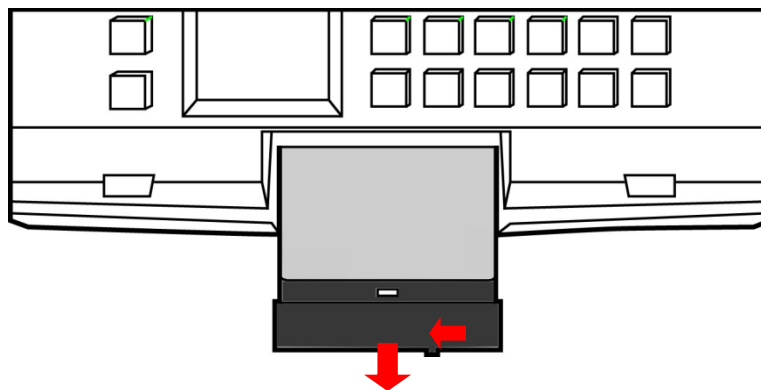


### **Connect to PC**

The removable HDD enclosure can be pulled out of the HRS-30 and connected to a PC or MAC with the supplied USB cable. Follow the steps outlined below.

**Step 1.** First turn off the HRS-30.

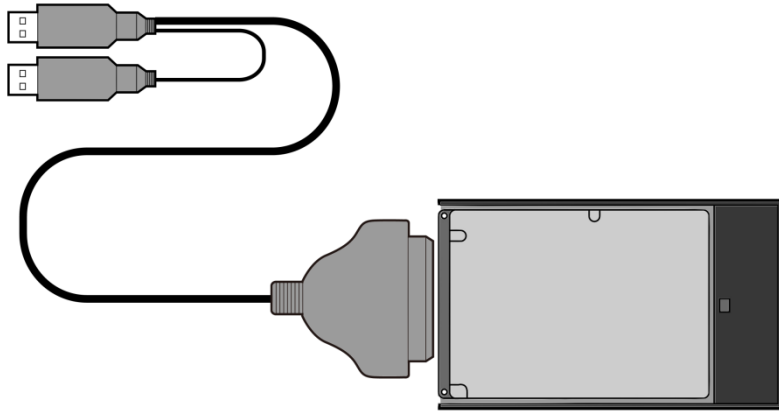
**Step 2.** Push the slide switch to the right to unlock the HDD drive enclosure. Pull out the HDD drive enclosure.



**Step 3.** The HDD drive enclosure should have a SATA connector on its rear; the SATA connector serves to supply power to the HDD, as well as allow exchange of data.



**Step 4.** Connect the supplied SATA-USB cable to the HDD drive enclosure, and connect the double lead end to your PC or Laptop. Please connect to two USB ports.



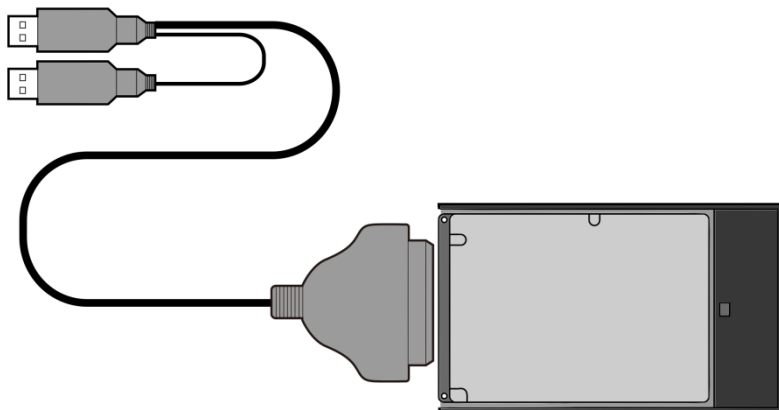
**Step 5.** When connected to the PC, a new Local Disk should appear, allowing you to access the disk directly and drag and drop the files.

**Note the following HRS-30 system file properties:**

1. One BIN = 99 CLIPs (max).
2. HRS-30 REC over 10 hours will add one CLIP.
3. When you pause / stop REC or REC error, the HRS-30 system will add one CLIP.

#### **Connect to MAC**

**Step 1.** Connect the supplied SATA-USB cable to the HDD drive enclosure, and connect the double lead end to your MAC. Please connect to two USB ports.



**Step 2.** A Datavideo drive should appear on the MAC desktop.

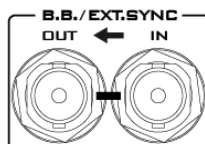
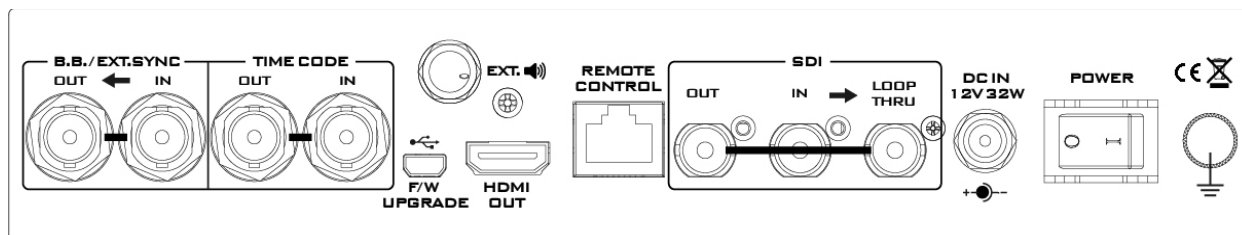


**Step 3.** Double click the icon should open the window below.



## Product Overview

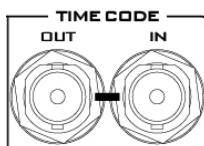
### Rear Panel



#### Black Burst / Loop Through Out

Black Burst / Loop Through Out can be used as a video reference source when synchronizing other devices to the HRS-30.

**Note:** User needs to add a 75 ohm terminator if this is the last device of the Black Burst signal chain.



#### Time Code Signal IN /OUT & Loop through OUT

The HRS-30 uses either an internal or external time code source.

- In **RECORD** state, the source time code will loop through to output.
- In **PLAY** state, the output time code source is from the HRS-30 playing file.



#### Stereo Phone Jack Plug

For audio output and the volume is controlled by the Audio Level Adjustments (on the Monitor Operation Keyboard).

**Note:** When this phone jack connects earphones, the HRS-30 speaker will continue to work.



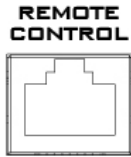
#### Mini USB

This is for Recorder Operation keyboard firmware upgrade purpose.



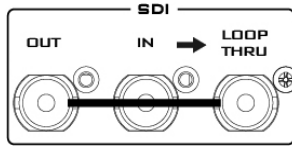
#### HDMI OUT

HDMI output port for connecting HDMI external device.



### Remote Control Port

Enable / Disable via Recorder **MENU**; please see **System Setup** for more details.



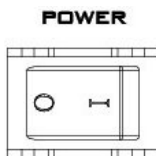
### HD-SDI IN / OUT & Pass-through OUT Connectors

4:2:2 SDI video data supports SMPTE 292M standard at 1.5Gbps.



### DC IN Socket

Connects the supplied 12V PSU to this socket.



### Power On/Off Switch

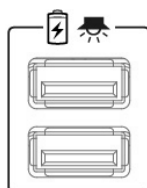
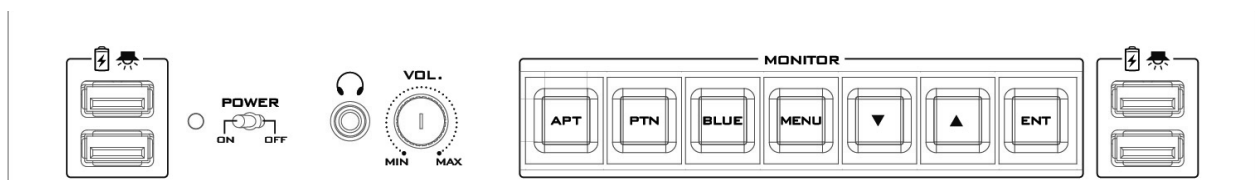
Switches the HRS-30 power ON / OFF.



### Grounding Terminal

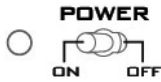
When connecting this unit to any other component, make sure that it is properly grounded by connecting this terminal to an appropriate point. When connecting, use the socket and be sure to use wire with a cross-sectional area of at least 1.0 mm<sup>2</sup>.

## Monitor Operation Keyboard



### USB Port

USB ports for connecting external LED lamp; can also serve as 5V / 500mA USB power supplies.



### Power Switch

Switches the monitor power On / Off.



### Stereo Phone Jack Plug

For connecting stereo headphones. The headphone volume is controlled by the Audio Level Adjustment.

**Note:** When earphones are connected to the phone jack, the HRS-30 speaker will be disabled.



### Audio Level Adjustment

Allows you to adjust the headphones volume.



### Aspect Ratio Button

Sets the LCD aspect ratio to 4:3, 16:10, or 16:9



### PATTERN

The PATTERN button will generate colour bars on the screen. Press the PATTERN button again to return to normal output.



### BLUE

Press this button to eliminate the red and green components of input signals. Only the blue component of an input is displayed on the screen. This allows adjustment of chroma and phase. (Phase adjustment is effective with NTSC signals).

Press this button to exit the MENU mode.



### MENU

Opens the on-screen menu. Please see the **Monitor Menu Options** for more details.



### UP / DOWN

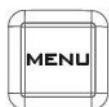
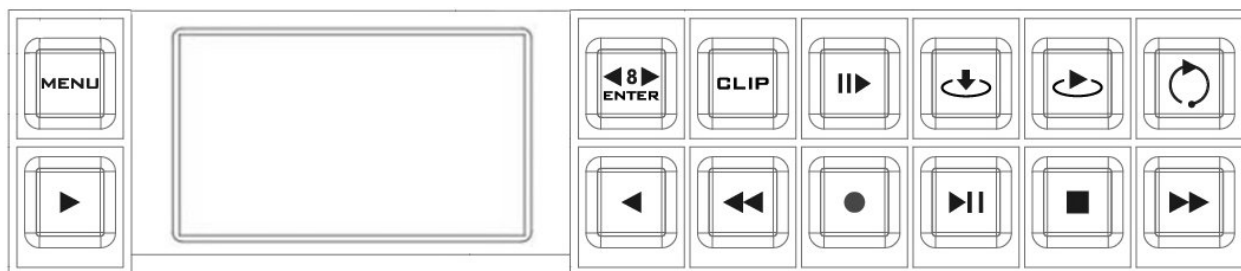
Navigate the on-screen menu and set the functions & levels.



### ENTER

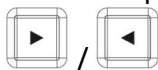
Confirms the new settings or return to the default state.

## Recorder Operation Keyboard



### Menu Button

This calls up the menu display which is navigated using the



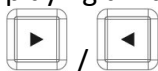
Soft Keys.



### Enter or Skip 8 sec.

**Enter Key:** Confirm your **Recorder Operation** select, display on 2" LCD panel.

In order to activate Skip 8 sec. function while HRS-30 is playing a video clip, press **Skip 8 sec.** button and then press





Soft Keys to skip forward by 8~10 seconds or backward 8 ~ 10 seconds (depending on the recorded format).




### CLIP Selection

Press the "CLIP" button to activate the function "skip to the next CLIP or previous CLIP."

In HRS-30 play state, press **CLIP** button and then press  /  Soft Keys to skip to next or last CLIP.



### Slow Motion Play Back

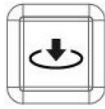
In order to activate Slow Motion Playback while HRS-30 is playing a video clip, press  key, and then press  /



Soft Keys to slow forward / slow rewind of 1/3X, 1/6X, 1/9X, 1/12X.

**Note:** IF the format of the file being played is **I-Frame only**, the forward & rewind speed will have an additional 1/2 option.





### Mark In (I-frame only)

Press this button to set a cue point during play or record. This memorized cue point can be recalled by "Playback From Mark In" during playback.

**Note:** When you press this button, the current time code will turn red for 3 seconds on the 2" LCD panel.



### Playback From Mark In (I-frame only)

Press this button to quick review video footage from memorized mark-in point.

**Note:** The mark-in review will start from the location 5 seconds prior to actual mark-in point to compensate delay between eye sight and hand motion.



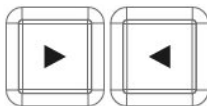
### Re-Playback

Press this button once: Re-Playback from last 15 seconds of the last CLIP to review.

Press this button two times: Re-Playback from last 15 seconds of the last CLIP to review.

- IDLE Mode: Re-Playback from the last 15 seconds of the Last clip in the current BIN.

- PLAY Mode: Skip back by 8~10 SEC.





### PREV / NEXT Soft Keys

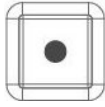
These two buttons are not only for skipping to Previous/Next clip but also for other functions, so these two buttons are also known as "Soft Keys."



### Rew Button

In playback state, this button will operate as **Fast Rewind** Button.

During Fast Rewind, press  /  Soft Keys to select rewind speed (x1, x3, x6, x9, and x12).



### Record Button

To start recording press the Record Button and Play Button simultaneously.

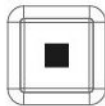
**Note1:** Unit will not record if no video signal is present.

**Note2:** In HRS-30 play state, press Record button, 2" LCD Display Panel will show the **FILE FORMAT** and **BIN FILE LENGTH** information; press Record button again will return to normal.



### Play / Pause Button

Starts play file, or pauses play, the status will be displayed on the 2" LCD Display Panel.





### Stop Button

Stops playback or record.

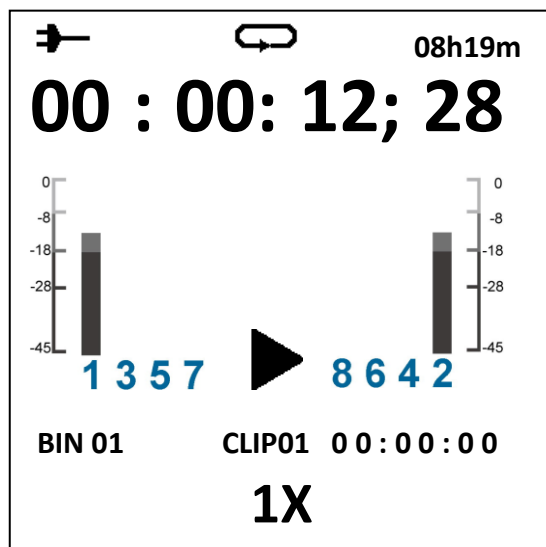


### Fwd Button

In playback state, this button will operate as Fast Forward Button.

During Fast Forward, press  /  Soft Keys to select fast forward speed (x1, x3, x6, x9, and x12).

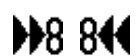
## Recorder Display Panel Status



SYMBOL	DESCRIPTION
	<b>Type A:</b> connect DC power indication
	<b>Type B:</b> connect battery power indication
	Loop Playback indicator
08h19m	Remaining Recording Space in Hours and Minutes
00:00:12;28	Current Time Code or total length of CLIP
	Eight channel audio meters <b>1357</b> – Channels 1, 3, 5, 7 <b>8642</b> – Channels 2, 4, 6, 8
	Record, Pause, FWD, REV, Play, and Stop indication

**1X 3X 6X 9X 12X**  
**1/2X 1/3X 1/6X 1/9X 1/12X**

Fast Forward or Fast Rewind speeds; Slow Forward or Slow Rewind speeds



Skip forward by approximately 8 seconds or Skip backward by approximately 8 seconds.

**BIN 01**

Current BIN number


**CLIP01**


Current CLIP number

## Monitor Menu Options

### PICTURE

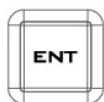


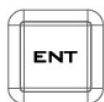
**Step 1.** Press the  button once to open the monitor OSD menu.

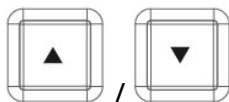
<b>PICTURE</b>	   
<b>BRIGHTNESS</b>	<b>50</b>
<b>CONTRAST</b>	<b>50</b>
<b>SATURATION</b>	<b>50</b>
<b>TINT</b>	<b>50</b>
<b>COLOR TEMP</b>	<b>&gt;&gt;</b>
▼:Down ▲:Up Menu:Esc Blue:Exit	



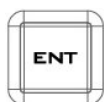
**Step 2.** Press  button to select options on the **PICTURE** menu.




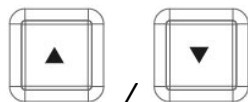
**Step 3.** Press  button again to select **BRIGHTNESS**.

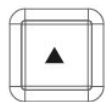



**Step 4.** Press  /  buttons to set the **BRIGHTNESS** which ranges from 0~100

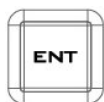


**Step 5.** Press  button to save your setting and return to the **PICTURE** menu.




**Note 1:** Use the  /  buttons to select another option (**CONTRAST**, **SATURATION**, **TINT**, or **COLOR TEMP**) then follow the same procedure to set the value.

**Note 2:** **BRIGHTNESS** **CONTRAST**, **SATURATION** and **TINT** also range from 0~100.



**Step 6.** Press  button to select **COLOR TEMP**.




**Step 7.** Press  button again to select the **COLOR TEMP** mode (**USER/ 5400 / 6500/ 7500 / 9300**).

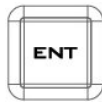
**Step 8.** In **USER** mode, you can set RED, GREEN and BLUE colours which should range from 0~255.

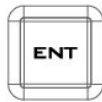
## **FUNC**




**Step 1.** Press the  button two times to switch to the **FUNC** menu.

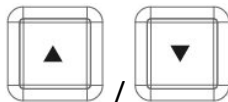
<b>FUNC</b>	
CENTER MARK	OFF
SAFETY ZONE	OFF
4 : 3 SCREEN	OFF
CINEMA ZONE	OFF
▼:Down ▲:Up Menu:Esc Blue:Exit	



**Step 2.** Press  button to select options on the **FUNC** menu.



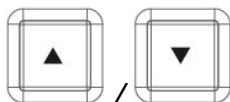
**Step 3.** Press  button again to Enable/Disable **CENTER MARK** on the screen.

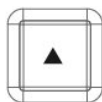



**Step 4.** Press  /  buttons to select **SAFETY ZONE**.

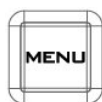


**Step 6.** Press  button to set the **SAFETY ZONE** range (80, 90 or OFF).

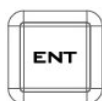
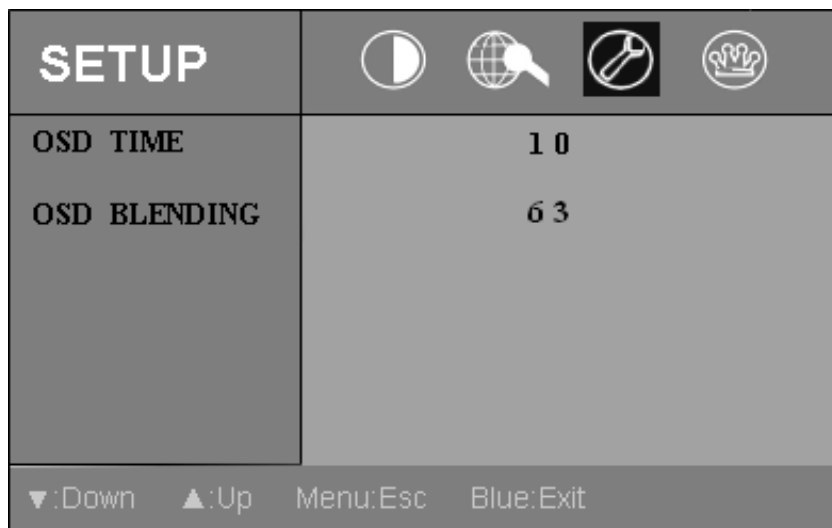


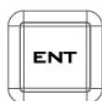
**Note:** Use the  /  buttons to select another option (**4:3 SCREEN**, **CINEMA ZONE**) then follow the same procedure to set these options.

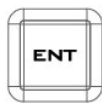
## SETUP



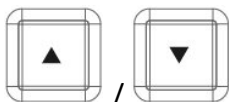
**Step 1.** Press the  button three times to select the **SETUP** menu.





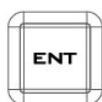
**Step 2.** Press  button to select options on the **SETUP** menu.

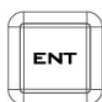


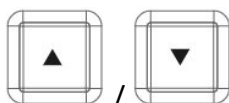
**Step 3.** Press  button again to select **OSD TIME**.

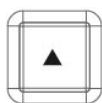
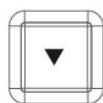


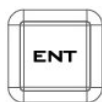
**Step 4.** Press  /  buttons to select the OSD menu screen on time ranging from 5~60 SECONDS.



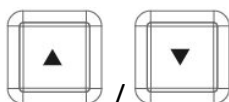
**Step 5.** Press  button to save the new setting and return to the **SETUP** menu.

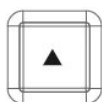



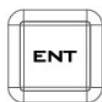
**Step 6.** Press  /  buttons to move to **OSD BLENDING**.

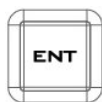


**Step 7.** Press  button to select **OSD BLENDING**.

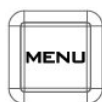



**Step 8.** Press  /  buttons to select the **OSD BLENDING** value (0~63).

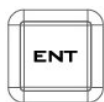


**Step 9.** Press  button to save the new setting and return to the **SETUP** menu.

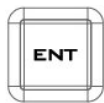
## ADVANCED

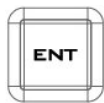


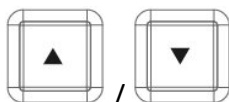
**Step 1.** Press the  button four times to select the **ADVANCED** menu.



**Step 2.** Press  button to select **RESET**.




**Step 3.** Press  button again to return all the monitor settings the factory defaults.




**Step 4.** Press  /  buttons to move to **VERSION**.



**Step 6.** Press  button to display the version information on the screen.



**Step 7.** Press  button to exit the **ADVANCED** menu.



## Recorder Menu Options

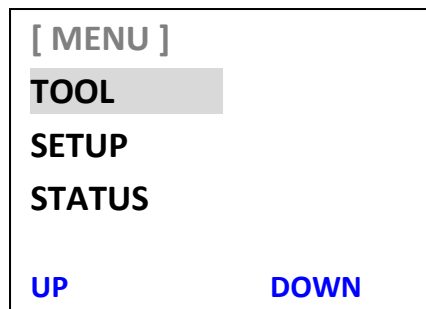
### TOOL


#### Firmware Revision

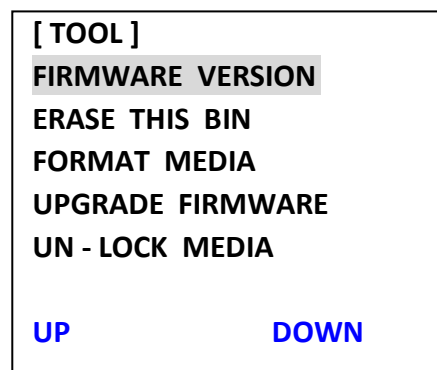
Display the device's firmware information: CODEC, HOST, REC...etc.



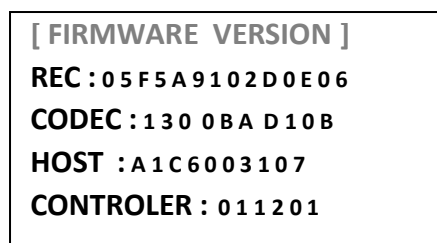
**Step 1.** Press the  (MENU) button to open the Recorder OSD menu.




**Step 2.** Press the  (ENTER) button to enter the **TOOL** menu.




**Step 3.** Press the  (ENTER) button again to see the **FIRMWARE VERSIONS**.






**Step 4.** Press the  (MENU) button to exit **FIRMWARE VERSION**.

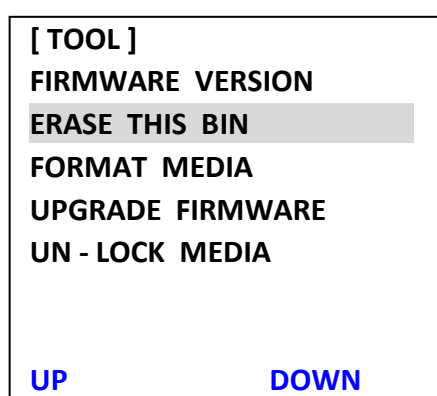
## Erase This Bin


**ERASE THIS BIN** deletes individual bins from the device.

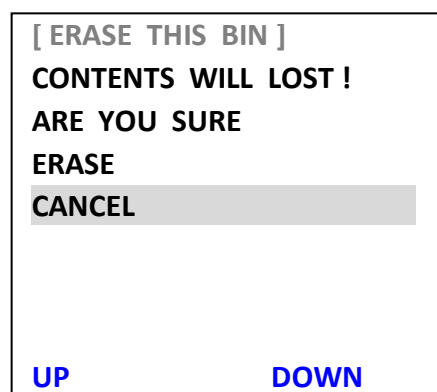
**Step 1.** Press the  (MENU) button to open the Recorder OSD menu.


**Step 2.** Press the  (ENTER) button to enter the **TOOL** menu.


**Step 3.** Press the  (UP) button /  (DOWN) button to select **ERASE THIS BIN**.

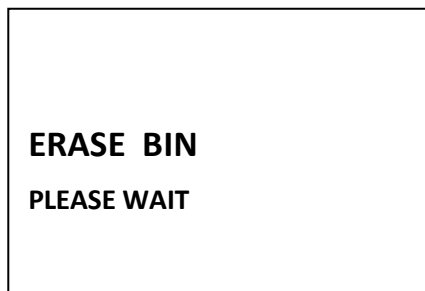


**Step 4.** Press the  (ENTER) button to enter the **ERASE THIS BIN** sub menu.



**Step 5.** Press the  (UP) button to move to the **ERASE** option.

**Step 6.** Press the  (ENTER) button to erase the selected bin - The bin duration will return to 00:00:00:00.



### Format Media

**Format Media** removes all bins from the hard drive.



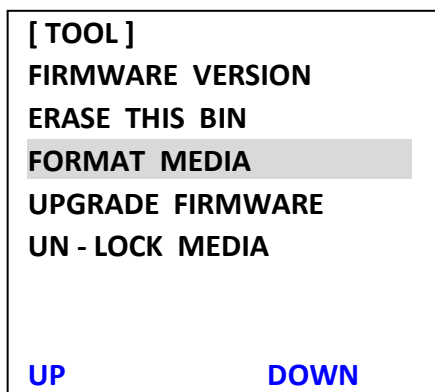
**Step 1.** Press the (MENU) button to open the Recorder OSD menu.



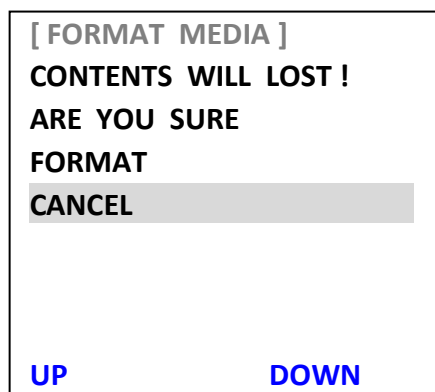
**Step 2.** Press the (ENTER) button to enter the **TOOL** menu.



**Step 3.** Press the (UP) button / (DOWN) button to select **FORMAT MEDIA**.



**Step 4.** Press the (ENTER) button to enter the **FORMAT MEDIA** sub menu.





**Step 5.** Press the (UP) button to move to the **FORMAT** option.



**Step 6.** Press the (ENTER) button to format the HDD. After a few seconds the HRS-30 will return to working state.

**NOTE:** When your 2.5" HDD contains media files, the first time you connect the HDD to a computer, the computer needs about 20 seconds to detect this HDD.

## Upgrade Firmware

Follow the steps outlined below to update the recorder's keyboard and mainboard firmware:

### Recorder Keyboard

Step 1. Use a USB (Type A to Mini USB) cable to connect the HRS-30's mini USB port on the rear panel to your computer.

Step 2. Power on the HRS-30 and you should see a new USB disk drive detected on the computer

Step 3. Copy the new firmware.bin file and paste it into the destination file folder to overwrite the old firmware file.

Step 4. Safely remove the USB disk drive then follow the firmware upgrade process outlined below.

### Recorder Main Board

Step 1. Go to the FORMAT MEDIA sub menu to format the 2.5" HDD.

Step 2. Turn off the device after disk format is complete.

Step 3. Remove the 2.5"HDD from the HRS-30.

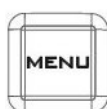
Step 4. Connect the disk drive to your computer.

Step 5. Copy and paste the firmware update file (**flash.bin**) to the root directory of the 2.5" HDD.

Step 6. Safely remove the 2.5" HDD.


Step 7. Insert the 2.5" HDD into the HRS-30 then follow the firmware upgrade process outlined below.

## Firmware Upgrade Process



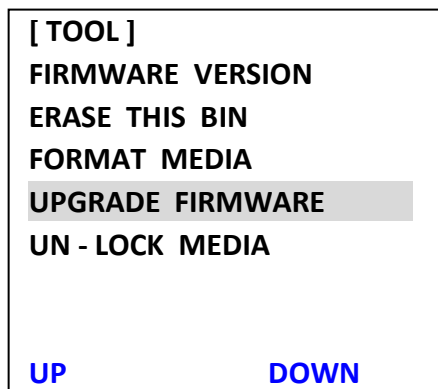
- Press the (MENU) button to open the Recorder OSD menu.




- Press the  (ENTER) button to enter the **TOOL** menu.



- Press the  (UP) button /  (DOWN) button to select **UPGRADE FIRMWARE**.



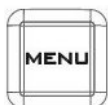
- Press the  (ENTER) button to start the firmware upgrade.
- Reboot the HRS-30.

**\*NOTE:** The firmware upgrade process should take approximately few minutes to complete.

**\*NOTE:** Please do not select “**UNLOCK MEDIA**” while the firmware is being upgraded.


### Un-Lock Media

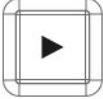
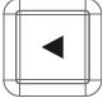
After files are recorded on the HRS-30, the 2.5”HDD becomes read only. To make the disk writable, please enable UN-LOCK MEDIA.

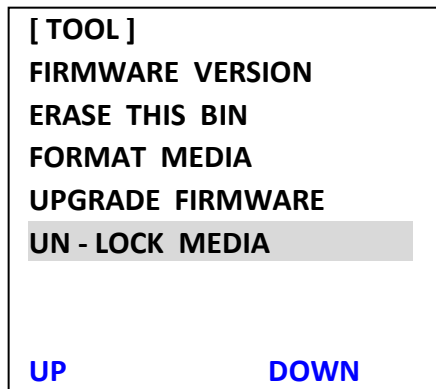



**Step 1.** Press the  (MENU) button to open the Recorder OSD menu.

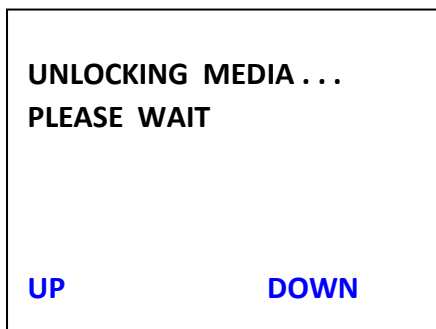


**Step 2.** Press the  (ENTER) button to enter the **TOOL** menu.

**Step 3.** Press the  (UP) button /  (DOWN) button to select **UN-LOCK MEDIA**.




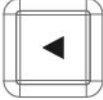
**Step 4.** Press the  (ENTER) button to disable write protection.

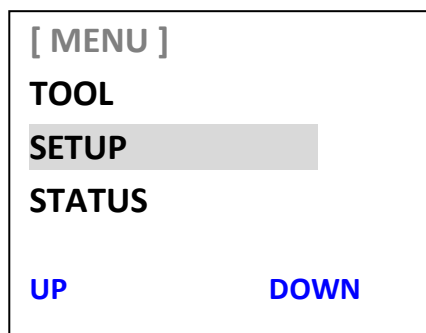


## **SETUP**

### **Record Setup**

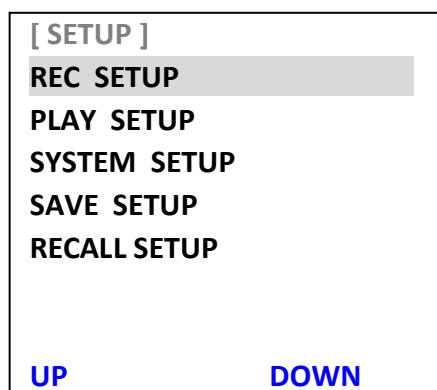
**Step 1.** Press the  (MENU) button to open the Recorder OSD menu.

**Step 2.** Press the  (DOWN) button to select the **SETUP** menu.

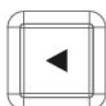
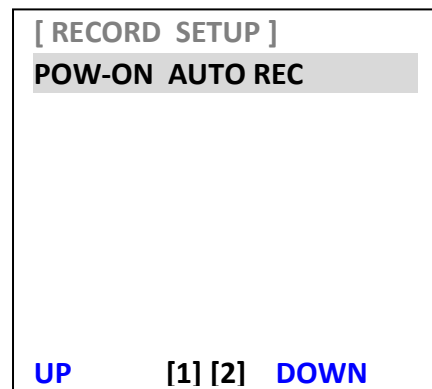
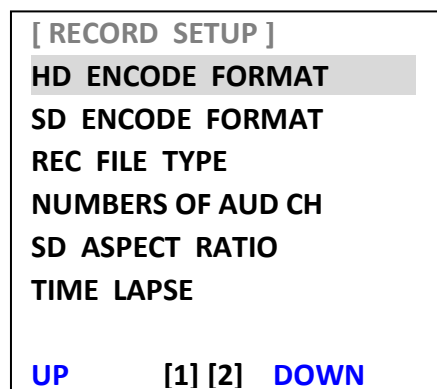




**Step 3.** Press the (ENTER) button to enter the **SETUP** menu.



**Step 4.** Press the (ENTER) button to enter the **REC SETUP** sub menu.



**Step 5.** Press the (UP) button / (DOWN) button to select the **HD ENCODE FORMAT / SD ENCODE FORMAT / REC FILE TYPE / REC CHANNEL NUM / SD ASPECT RATIO / TIME LAPSE / PWR-ON AUTO REC** options.



**Step 6.** Press the (ENTER) button to set the **HD ENCODE FORMAT / SD ENCODE FORMAT / REC FILE TYPE / REC CHANNEL NUM / SD ASPECT RATIO / TIME LAPSE / PWR-ON AUTO REC** options.

**HD ENCODE FORMAT** - Set the HD video encode format to 100M I FRAME ONLY or 125M I FRAME ONLY (encode Intra frame only).

[ HD ENCODE FORMAT ]	
✱HD LONG GOP	
HD I – FRAME ONLY	
UP	DOWN

**SD ENCODE FORMAT** - Set the SD video encode format to 25M I FRAME ONLY or 50M I FRAME ONLY (encode Intra frame only).

[ SD ENCODE FORMAT ]	
✱SD LONG GOP	
SD I – FRAME ONLY	
UP	DOWN

**REC FILE TYPE** - Set the record file type to MXF or MOV.

[ FILE TYPE ]	
HD FILE TYPE	
SD FILE TYPE	
UP	DOWN

**NUMBERS OF AUD CH** - Audio channel selection; select to record 2, 4 or 8 audio channels.

[ NUMBERS OF AUD CH ]	
✱2CH	
4CH	
8CH	
UP	DOWN



**SD ASPECT RATIO** - Set the SD aspect ratio to 16:9 or 4:3.

[ SD ASPECT RATIO ]

\*4 : 3

16 : 9

UP

DOWN

**TIME LAPSE** – Enable/Disable TIME LAPSE

Set the TIME LAPSE FRAME RATE (1 frame / 1 sec).

Set the TIME LAPSE CYCLE (y frame per x sec).

[ TIME LAPSE ]

TIME LAPSE ON / OFF

TIME LAPSE CYCLE

UP

DOWN

**PWR-ON AUTO RECORD** – Enable/Disable the POWER ON AUTO-RECORD mode.

[ POW ON AUTO REC ]

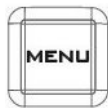
ON

\* OFF

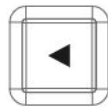
UP

DOWN

## Play Setup



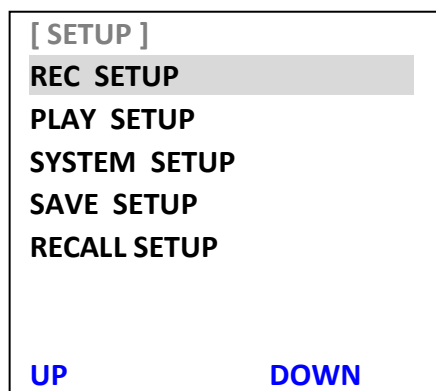
**Step 1.** Press the (MENU) button to open the Recorder OSD menu.



**Step 2.** Press the (DOWN) button to select the **SETUP** menu.



**Step 3.** Press the (ENTER) button to enter the **SETUP** menu.

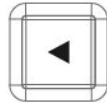


**Step 4.** Press the (UP) button / (DOWN) button to select the **PLAY SETUP** menu.



**Step 5.** Press the (ENTER) button to open the **PLAY SETUP** menu.





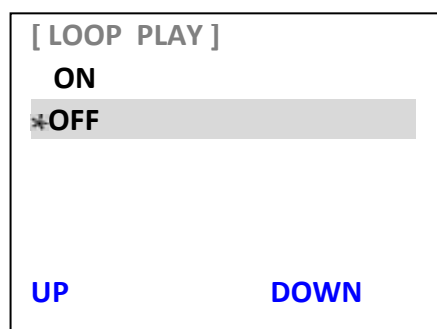
**Step 6.** Press the (UP) button / (DOWN) button to select the **LOOP PLAY / POWER ON AUTO-PLAY / GEN LOCK / PLAY CENTRIC** options.



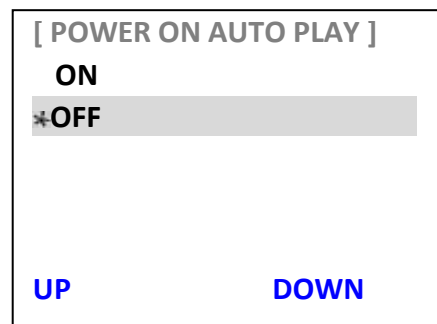
**Step 7.** Press the (ENTER) button to set the **LOOP PLAY / POWER ON AUTO PLAY / GEN LOCK / PLAY CENTRIC** options.

**Note:** If the LOOP PLAY function is OFF, the clip will not be played when it is played to the end or rewound to the beginning.

**LOOP PLAY** – Enable/Disable the LOOP PLAY mode (on / off).

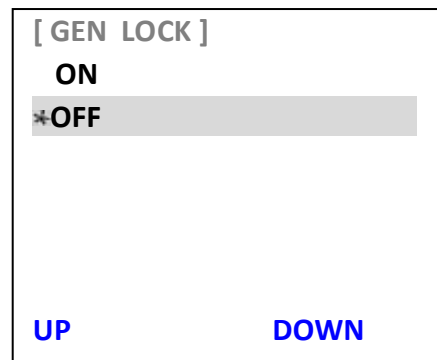


**POWER ON AUTO PLAY** – Enable/Disable the POWER ON AUTO PLAY mode (on / off).

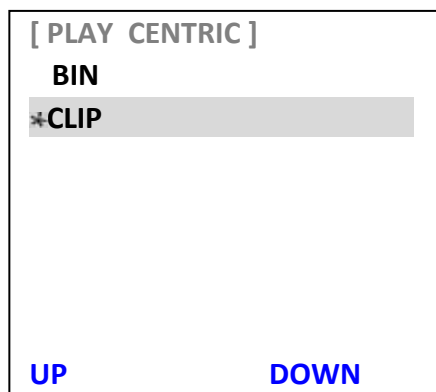


**GEN LOCK** – Enable/Disable the GEN LOCK mode (on / off).

**Note:** Genlock is only available in play mode.



**PLAY CENTRIC** - Set the PLAY CENTRIC mode (bin / CLIP).



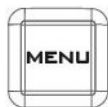
CLIP = When LOOP PLAY mode is on, HRS-30 will loop play CLIP file.

When LOOP PLAY mode is off, HRS-30 will pause at the end of the CLIP.

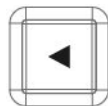
BIN = When LOOP PLAY mode is on, HRS-30 will play all CLIPs of BIN file until it reaches to the end of last CLIP; it will then loop back to beginning of the CLIP 1.

When LOOP PLAY mode is off, HRS-30 will pause at the end of the BIN.

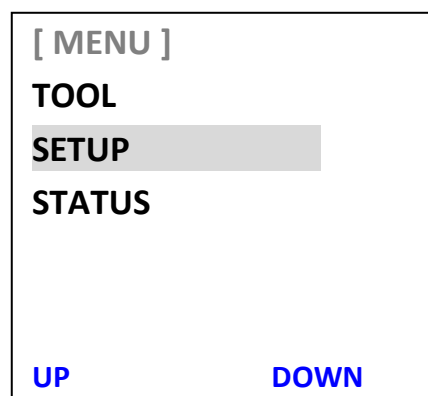
### System Setup



**Step 1.** Press the (MENU) button to open the Recorder OSD menu.

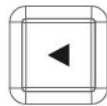
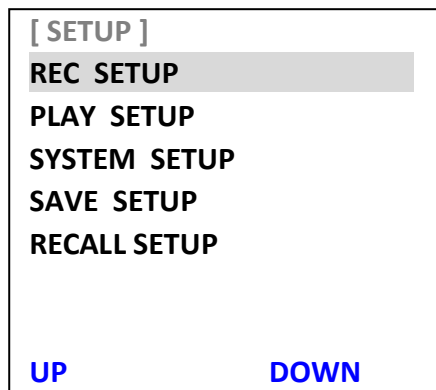


**Step 2.** Press the (DOWN) button to select the **SETUP** menu.

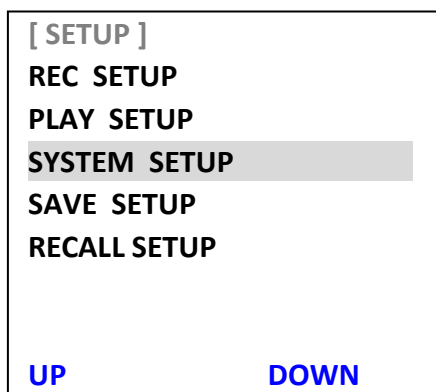




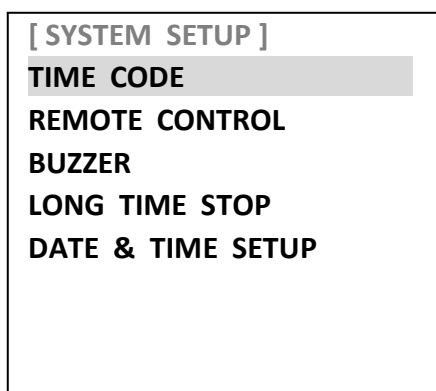
**Step 3.** Press the (ENTER) button to enter the **SETUP** menu.

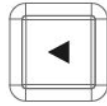


**Step 4.** Press the (UP) button / (DOWN) button to select the **SYSTEM SETUP** sub menu.



**Step 5.** Press the (ENTER) button to enter the **SYSTEM SETUP** sub menu.





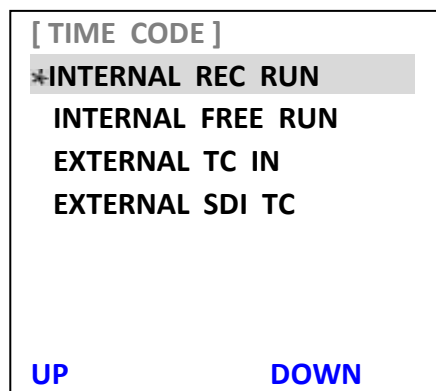
**Step 6.** Press the (UP) button / (DOWN) button to select the **TIMECODE / REMOTE CONTROL / BUZZER / LONG TIME STOP / DATE & TIME SETUP** options.



**Step 7.** Press the (ENTER) button to set the **TIMECODE / REMOTE CONTROL / BUZZER / LONG TIME STOP / DATE & TIME SETUP** options.

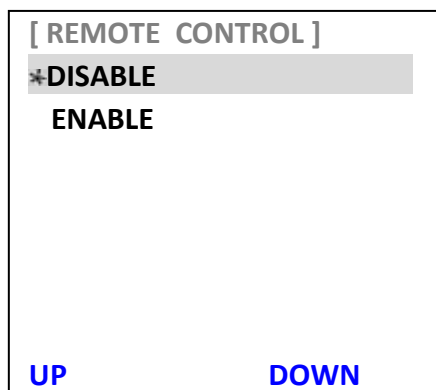
**TIMECODE** – Set the TIME CODE running at INTERNAL RCA RUN / INTERNAL FREE RUN / EXTERNAL TC IN or EXTERNAL SDI TC.

**Note:** **INTERNAL FREE RUN** time code follows system real time clock.



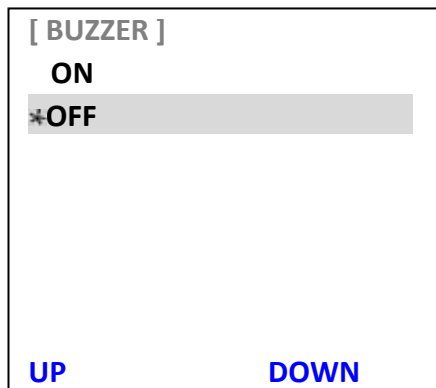
**REMOTE CONTROL** – Enable/Disable the REMOTE CONTROL (RJ-45 port on the rear panel) function.

**Note:** When REMOTE CONTROL is enabled, the buttons will be disabled.

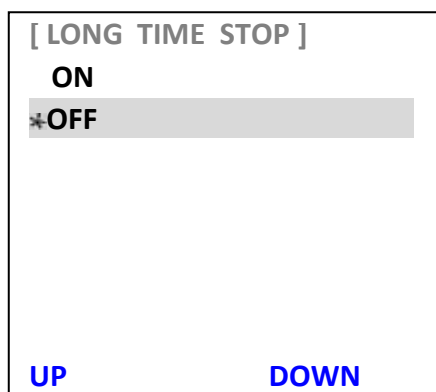



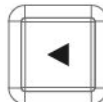


**BUZZER** – Enable/Disable the BUZZER function.

The buzzer will sound if an "unrecoverable" defect is detected on the HRS-30.



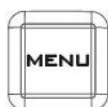
**LONG TIME STOP** – Enable/Disable the HOLD 1 SECOND TO STOP function.



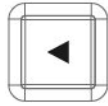
**DATE & TIME SETUP** – Use the  (UP) /  (DOWN) /  (Fwd ) /  (Rew) buttons to set the DATE & TIME.



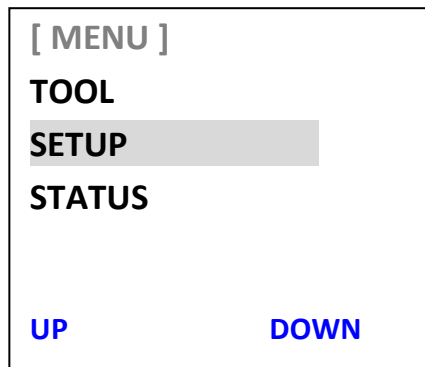
**Save Setup**



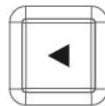
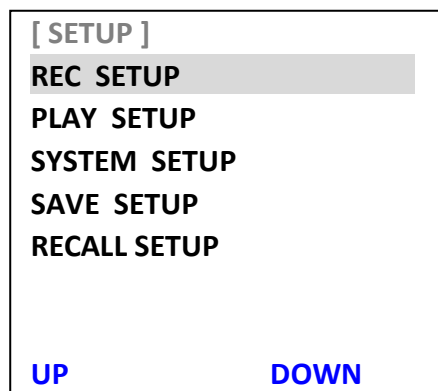
**Step 1.** Press the  (MENU) button to open the Recorder OSD menu.



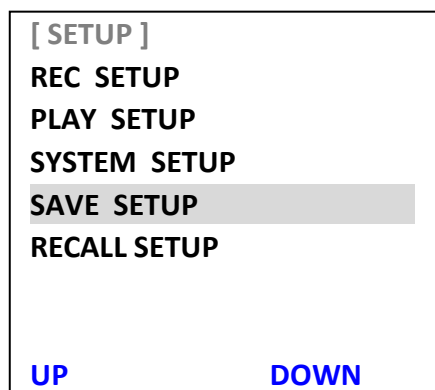
**Step 2.** Press the (DOWN) button to select the **SETUP** menu.



**Step 3.** Press the (ENTER) button to enter the **SETUP** menu.

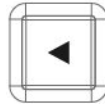
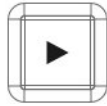
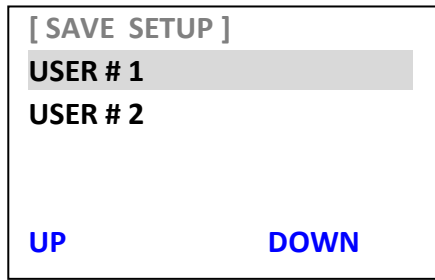


**Step 4.** Press the (UP) button / (DOWN) button to select the **SAVE SETUP** menu.



**Step 5.** Press the (ENTER) button to enter the **SAVE SETUP** menu.



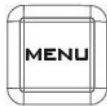


**Step 6.** Press the (UP) button / (DOWN) button to select either **USER #1** or **USER #2** for the save.

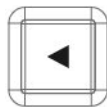


**Step 7.** Press the (ENTER) button to confirm the save.

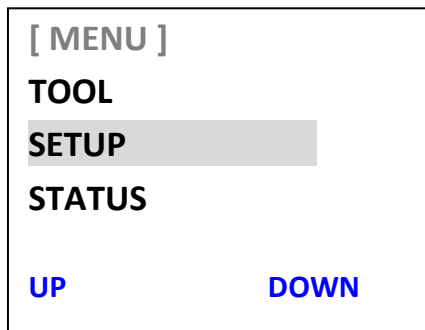
### Recall Setup



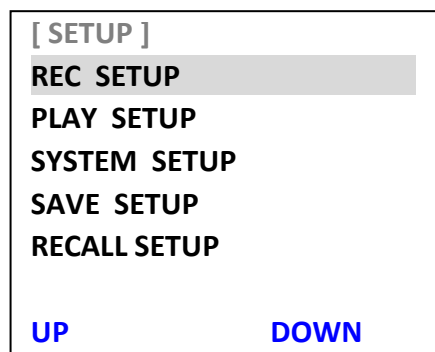
**Step 1.** Press the (MENU) button to open the Recorder OSD menu.

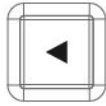
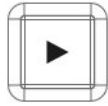


**Step 2.** Press the (DOWN) button to select the **SETUP** menu.

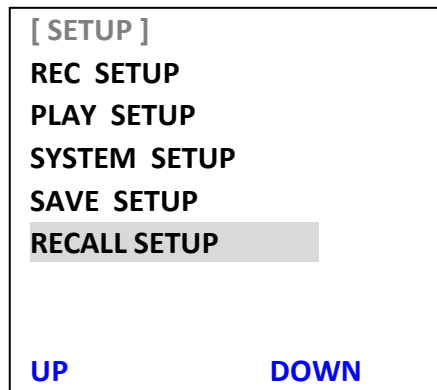


**Step 3.** Press the (ENTER) button to enter the **SETUP** menu.

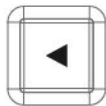




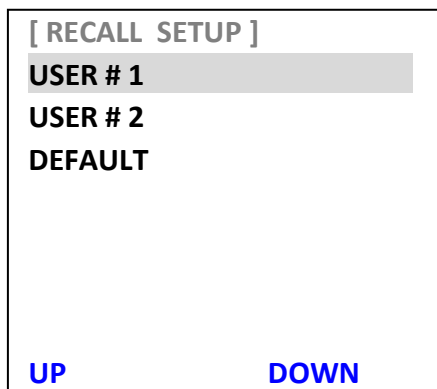
**Step 4.** Press the (UP) button / (DOWN) button to select the **RECALL SETUP** sub menu.



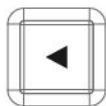
**Step 5.** Press the (ENTER) button to enter the **RECALL SETUP** sub menu.



**Step 6.** Press the (UP) button / (DOWN) button to select **USER #1 / USER #2** or **FACTORY DEFAULT**.



**Step 7.** Press the (ENTER) button to confirm your selection.

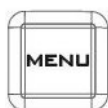


**Step 8.** Press the (UP) button / (DOWN) button to select **"YES "**, and then

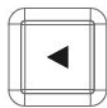


press the (ENTER) button to confirm your selection.

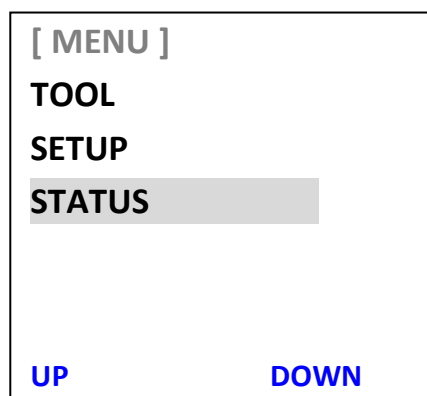
## STATUS



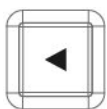
**Step 1.** Press the (MENU) button to open the Recorder OSD menu.



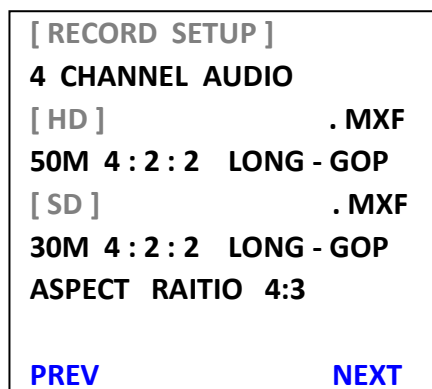
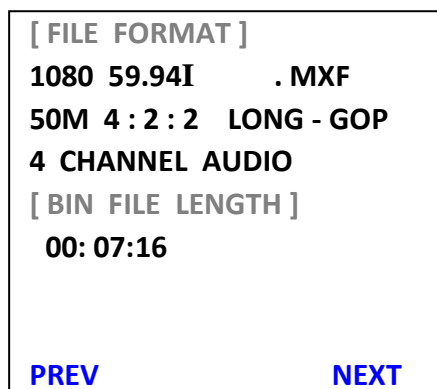
**Step 2.** Press the (UP) button / (DOWN) button select to the **STATUS** menu.



**Step 3.** Press the (ENTER) button to enter the **STATUS** menu.



**Step 4.** Press the (UP) button / (DOWN) button to view the **FILE FORMAT / BIN FILE LENGTH / RECORD SETUP / INPUT / TIME CODE / GENLOCK** status.



## Appendices

### *Frequently Asked Questions*

**Q 1:** What causes the HRS-30 to show “**CLOSE TO FULL**” on the 2” LCD Display Panel?

**Ans:** When HRS-30 HDD recordable time is less than **5 minutes**, the HRS-30 will show “**CLOSE TO FULL**” on Recorder Monitor.

**Q 2:** While the HRS-30 is recording, what will sudden power loss cause?

**Ans:** HRS-30 will lose the last 6 seconds of recorded data on the HDD.

**Q 3:** Why is “**LONG GOP**” option not available?

**Ans:** You need to enter the SETUP page, select **TIME LAPSE** option and disable this function; please see the [RECORD SETUP](#) section for more details.

**Q 4:** Why doesn't play or record stop?

**Ans:** You need to enter the SETUP page, select **LONG TIME STOP** option and disable this function; please see the [SYSTEM SETUP](#) section for more details.

**Q 5:** What causes the HRS-30 to show “**UNLOCK AUDIO**” on the 2” LCD Display Panel?

**Ans:** Please check the SDI input source connection and the signal as well.

**Q 6:** Why buttons on the recorder panel are not operational when HRS-30 REMOTE CONTROL function is enabled?

**Ans:** **REMOTE CONTROL** function and **Recorder Operation** buttons cannot be enabled at the same time.

**Q 7:** What causes the HRS-30 to show “**WRONG MEDIA**” on the 2” LCD Display Panel?

**Ans:** 1. If the HD drive is new and unformatted, the HRS-30 will show “**WRONG MEDIA**” on the 2” LCD Display Panel to prompt you to format the HD drive.

2. If you take an HD disk from one HRS-30 and insert into another HRS-30, the second HRS-30 will show “**WRONG MEDIA**” on the 2” LCD Display Panel to prompt you to format the HD drive.

**Q 8:** What causes the HRS-30 to show “**FMT MISMATCH**” on the 2” LCD Display Panel?

**Ans:** **To record** different **CLIPs** in the same **BIN** folder, the files must be in the same format, i.e. same video source format, bitrate, audio channel and etc.

**Q 9:** What causes no time code output at the SD-SDI?

**Ans:** The HRS-30 does not support SD-SDI time code output.

## Error Codes

XX
01: Interface FPGA no response when boot
02: Recorder FW no response when boot
03: Codec FW no response when boot
04: Main board and Controller connect error.
10: Recorder FW falsely stops while recording
11: Recorder FW falsely stops while playing
12: Recorder FW does not respond to the command issued by HOST during recording or playback
20: Codec Reset Timeout
21: Codec Sync errors or State Conversion Error during playback
23: Codec TRIS Error

YY
78: ATA command FLUSH_CACHE timeout
7A: ATA command SETUP_DMA_MODE timeout
7C: Receive status error after sending ATA command, then retry sending ATA command 3 times and still receive status error
7F: DISK is busy for more than 3 seconds after sending ATA command
8E: CLIP code errors found during recorder initialization (not within the range of 1-99)
8F: BIN code errors found during recorder initialization (not within the range of 1-99)
C3: At the beginning of recording, errors are found when reading the file system data
C6: Recorder FPGA detects no VIDEO IN for 3 seconds during recording
C7: Frame Table Overflow during recording
CB: Memory is incorrectly overwritten
BF: RECORDER FPGA stops during playback
BB: RECORDER FW hard disk data read errors during playback

## RS-232 Control Command

### 1. Interface Overview

- Standard transmission rate on the interface bus is 38400 bits per seconds (bps)
- 1 Start bit + 8 Data bits + 1 Parity bit + 1 Stop bit (Odd Parity)

### 2. Command Table

Command	Name	Response Data
	<b>Common Transport Control</b>	
20h, 00h, 20h	Stop	10h, 01h, 11h
20h, 01h, 21h	Play	10h, 01h, 11h
20h, 02h, 22h	Record	10h, 01h, 11h
21h, 02h, 00h, 23h	Record Pause	10h, 01h, 11h
	<b>Common Trick Play</b>	
21h, 11h,, 00h, 32h	Play Pause	10h, 01h, 11h
20h, 10h, 30h	Fast Forward	10h, 01h, 11h
21h, 13h,, nn, csum	Shuttle Forward	10h, 01h, 11h
20h, 15h, 35h	Jump Forward	10h, 01h, 11h
20h, 20h, 40h	Fast Rewind	10h, 01h, 11h
21h, 23h,, nn, csum	Shuttle Reverse	10h, 01h, 11h
20h, 25h, 45h	Jump Reverse	10h, 01h, 11h
	<b>Vender Unique Control</b>	
01h, F0h, nn, csum	Select Bin(1~99)	10h, 01h, 11h
00h, F1h, F1h	Next Bin	10h, 01h, 11h
00h, F2h, F2h	Previous Bin	10h, 01h, 11h
	<b>Common System Control</b>	
00h, 11h, 11h	Device Type Request	12h, 11h, 00h, 01h, 24h
	<b>Vender Unique Control (External)</b>	
02h, F3h, 01h, nn, csum	Select Bin & Delete(1~99)	10h, 01h, 11h
02h, F3h, 05h, xx, csum	HD Rec Format (I-only/LGOP)	10h, 01h, 11h
02h, F3h, 05h, 00h, FAh	HD Long-GOP	10h, 01h, 11h
02h, F3h, 05h, 01h, FBh	HD I frame only	10h, 01h, 11h
02h, F3h, 06h, xx, csum	Bit Rate Select (HD)	10h, 01h, 11h
	LGOP:10/25/35/50/65/120	10h, 01h, 11h
	I-only:100/125	10h, 01h, 11h
02h, F3h, 07h, xx, csum	Bit Rate Select (SD)	10h, 01h, 11h
	LGOP:8/15/30/50	10h, 01h, 11h
	I-only:25/50	10h, 01h, 11h
02h, F3h, 09h, xx, csum	SD Aspect 4x3 or 16x9	10h, 01h, 11h
02h, F3h, 09h, 00h, FEh	SD Aspect :4x3	10h, 01h, 11h
02h, F3h, 09h, 01h, FFh	SD Aspect :16x9	10h, 01h, 11h
02h, F3h, 0Ah, xx, csum	SD Rec Format (I-only/LGOP)	10h, 01h, 11h
02h, F3h, 0Ah, 00h, FFh	SD Long-GOP	10h, 01h, 11h
02h, F3h, 0Ah, 01h, 00h	SD I frame only	10h, 01h, 11h
* 02h, F5h, 04, xx, csum	Rec SD File type	10h, 01h, 11h

Command	Name	Response Data
* 02h, F5h, 05, xx, csum	Rec HD File type	10h, 01h, 11h
* 02h, F5h, 03, xx, csum	TimeLapse Enable	10h, 01h, 11h
* 02h, F5h, 06, xx, csum	Power On Auto Record	10h, 01h, 11h
02h, F5h, 08h, 00h, FFh	Disable Loop Play	10h, 01h, 11h
02h, F5h, 08h, 01h, 00h	Enable Loop Play	10h, 01h, 11h
* 02h, F5h, 12h, xx, csum	Power On Auto PLAY	10h, 01h, 11h
* 04h, F5h, 15h, [3 bytes], csum	Time Lapse Control	10h, 01h, 11h
* 08h, F5h, 17h, [7 bytes], csum	Set Real Time Clock	10h, 01h, 11h
* 02h, F5h, 22h, xx, csum	Gen Lock control	10h, 01h, 11h
* 02h, F5h, 23h, xx, csum	Buzzer Control	10h, 01h, 11h
* 02h, F5h, 24h, xx, csum	Audio Channel number	10h, 01h, 11h
	<b>Vender Unique System Control</b>	
21h, F1h, 00h, 12h	Next (Right key)	10h, 01h, 11h
21h, F1h, 01h, 13h	Next Bin	10h, 01h, 11h
21h, F1h, 02h, 14h	Next Clip	10h, 01h, 11h
21h, F2h, 00h, 13h	Previous (Left Key)	10h, 01h, 11h
21h, F2h, 01h, 14h	Previous Bin	10h, 01h, 11h
21h, F2h, 02h, 15h	Previous Clip	10h, 01h, 11h
	<b>Vender Unique System Commands (External)</b>	
01h, F6h, 00, F7h	Make Media File (Unlock Media)	10h, 01h, 11h
01h, F6h, 01, F8h	Empty Current Bin	10h, 01h, 11h
01h, F6h, 02, F9h	Empty All (Format Media)	10h, 01h, 11h
	<b>Sense Control</b>	
61h, 0Ch, 04h, 71h	Time code Sense	74h, 00h, TC(3:0), csum
61h, 20h, 0Fh, 90h	Status Sense	7Fh, 20h, [15 bytes], csum
61h, 20h, xnh, csum	Variable Status Sense	7nh, 20h, [n bytes], csum
	<b>Vender Unique Sense Control</b>	
62h, F2h, 05h, 00h, 59h	Firmware Revision Sense (Recorder)	79h, F2h, 05h, 00h, [7 bytes] , csum
62h, F2h, 05h, 01h, 5Ah	Firmware Revision Sense (Host)	79h, F2h, 05h, 01h, [7 bytes] , csum
62h, F2h, 05h, 02h, 5Bh	Firmware Revision Sense (CODEC)	79h, F2h, 05h, 02h, [7 bytes] , csum

#### 04h, F5h, 15h, [3 bytes] : Time Lapse Control

04	F5	15	Frame	Sec[1]	Sec[0]	csum
----	----	----	-------	--------	--------	------

### 08h, F5h, 17h, [7 bytes] : Set Real Time Clock

08	F5	17	Year[1]	Year[0]	Month	Day	Hour	Min	Sec	GMT	csum
----	----	----	---------	---------	-------	-----	------	-----	-----	-----	------

### 3. Return Data

#### 10h 01h: ACK

10h	01h	csum
-----	-----	------

When a command from the CONTROLLER is received normally, the DEVICE returns this command as acknowledgment

#### 11h 12h: NAK

11h	12h	Data byte	csum
-----	-----	-----------	------

When a communication error is detected or an undefined COMMAND is received, the DEVICE returns this command as no-acknowledgment. Bit-7 to Bit-0 of Data byte will be set in accordance with the contents.

[Data byte]

Bit-7    Bit-6    Bit-5    Bit-4                      Bit-3                      Bit-2                      Bit-1    Bit-0

0	0		Parity Error	INHIBIT	CHECKSUM ERROR	0	UNDEFINED COMMAND
---	---	--	--------------	---------	----------------	---	-------------------

#### 12h 11h: DEVICE TYPE

12h	11h	Device byte1	Device byte2	csum
-----	-----	--------------	--------------	------

The“00h, 11h, 11h : DEVICE TYPE REQUEST” command is used for asking the specifications of the HRS-30 when used as DEVICE. When the DEVICE receives this command, it attaches 2-bytes of specification data to “12h 11h : DEVICE TYPE” and sends the information to the CONTROLLER.

HRS-30: 12h , 11h, 00h, 01h, csum,

### 4. Trick Play

#### 21h 13h nn csum : Shuttle Forward

#### 21h 23h nn csum : Shuttle Reverse

nn	speed	Command Forward	Command Reverse
62h	12X	21h 13h 62h 96h	21h 23h 62h A6h
5E h	9X	21h 13h 5Eh 92h	21h 23h 5Eh A2h



58 h	6X	21h 13h 58h 8Ch	21h 23h 58h 9Ch
4F h	3X	21h 13h 4Fh 83h	21h 23h 4Fh 93h
40h	1X	21h 13h 40h 74h	21h 23h 40h 84h

36h	1/2X	21h 13h 36h 6Ah	21h 23h 36h 7Ah
30 h	1/3X	21h 13h 30h 64h	21h 23h 30h 74h
27h	1/6X	21h 13h 27h 5Bh	21h 23h 27h 6Bh
21h	1/9X	21h 13h 21h 55h	21h 23h 21h 65h
1Dh	1/12X	21h 13h 1Dh 51h	21h 23h 1Dh 51h

**Note: 1/2X is for I-frame only.**

## 5. Vender Unique System Control

**21h, F1h, 02h, 14h: Next Clip**

**21h, F2h, 02h, 15h: Previous Clip**

**Note: Can only do clip-change at play-pause**

## 6. Firmware Revision Sense Data[7bytes]

### Firmware Revision Sense (Recorder)

Byte[0]: ROM

Byte [1]: FW Major

Byte [2]: FW Minor

Byte [3]: File System

Byte [4]: FPGA

Byte [5]: RBF

Byte [6]: ESP

### Firmware Revision Sense (Host)

Byte [0]: FW Major

Byte [1]: FW Minor

Byte [2]: Control CMD Major

Byte [3]: Control CMD Minor

Byte [4]: Bootloader Minor

Byte [5]: 0x00

Byte [6]: 0x00

### **Firmware Revision Sense (Codec)**

Byte [0]: Codec Bootloader Major

Byte [1]: Codec Bootloader Minor

Byte [2]: Codec Host Major

Byte [3]: Codec Host Minor

Byte [4]: Codec Major

Byte [5]: Codec Minor

Byte [6]: 0x00

## **7. Variable Status Sense**

61h, 20 h, xnh, csum

The return-byte is variable for Status Sense.

The 3<sup>rd</sup> byte of command:

MSD (Bit7~4, x): Indicates the initial byte index to be returned.

LSD (Bit3~0, n): Indicates the number of data bytes to be returned.

## **8. Status Sense Control Command Response Bytes**

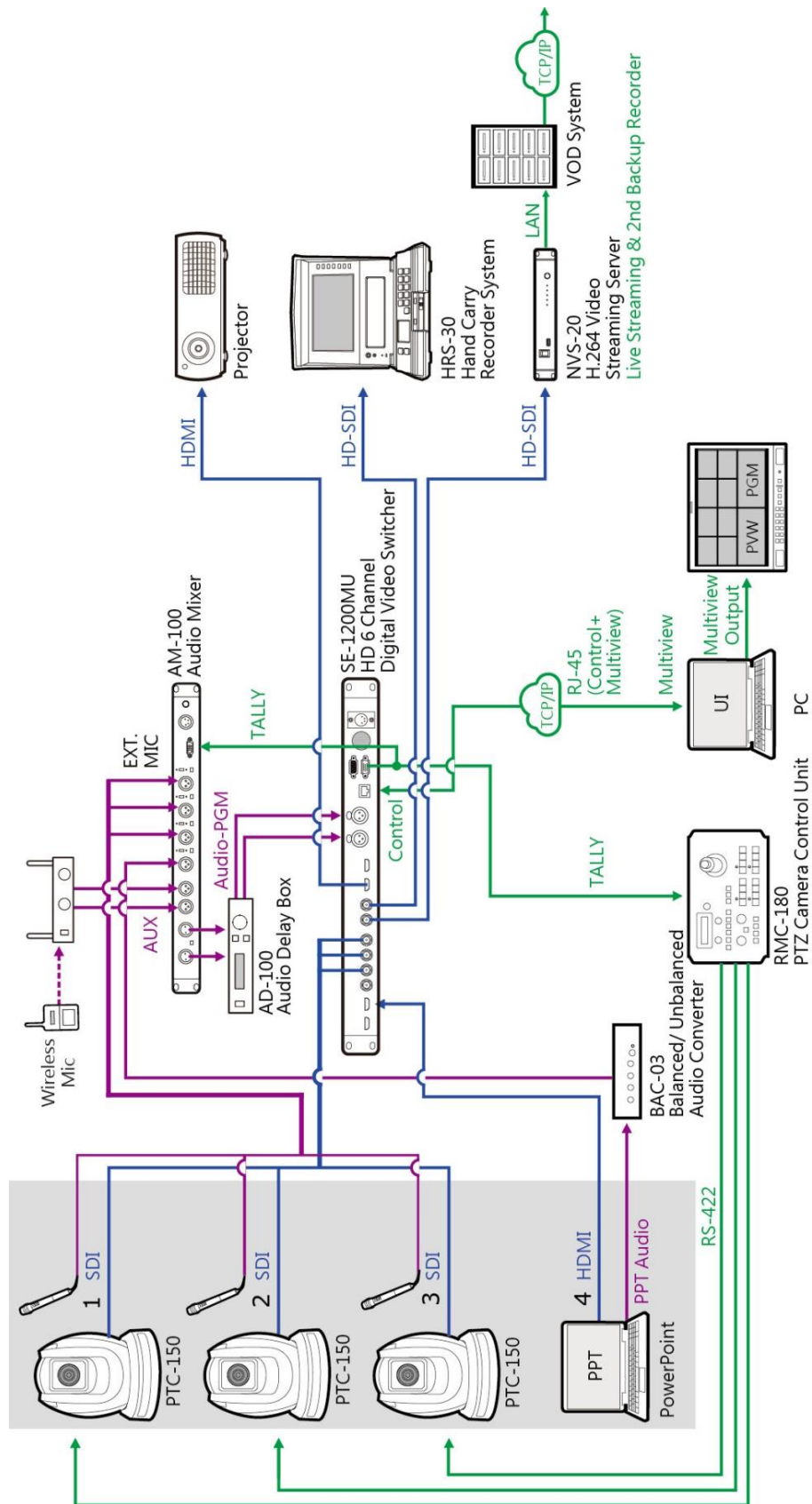
Mode Status: 0=Play Mode

Status Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
0	Busy	0	Cartridge Out	0	0	Wrong Media	0	Local Enable
1	0	0	Stop		Rewind	Fast Forward	Record	Play
2	0	0	0		0	Reverse	Still (Pause)	0
3	0	0	0	0	0	0	Video in	0
4	1	0	0	0	1	0	0	0
5	0	0		0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	Near End of Disk (panic)	End of disk	0	0	0	1

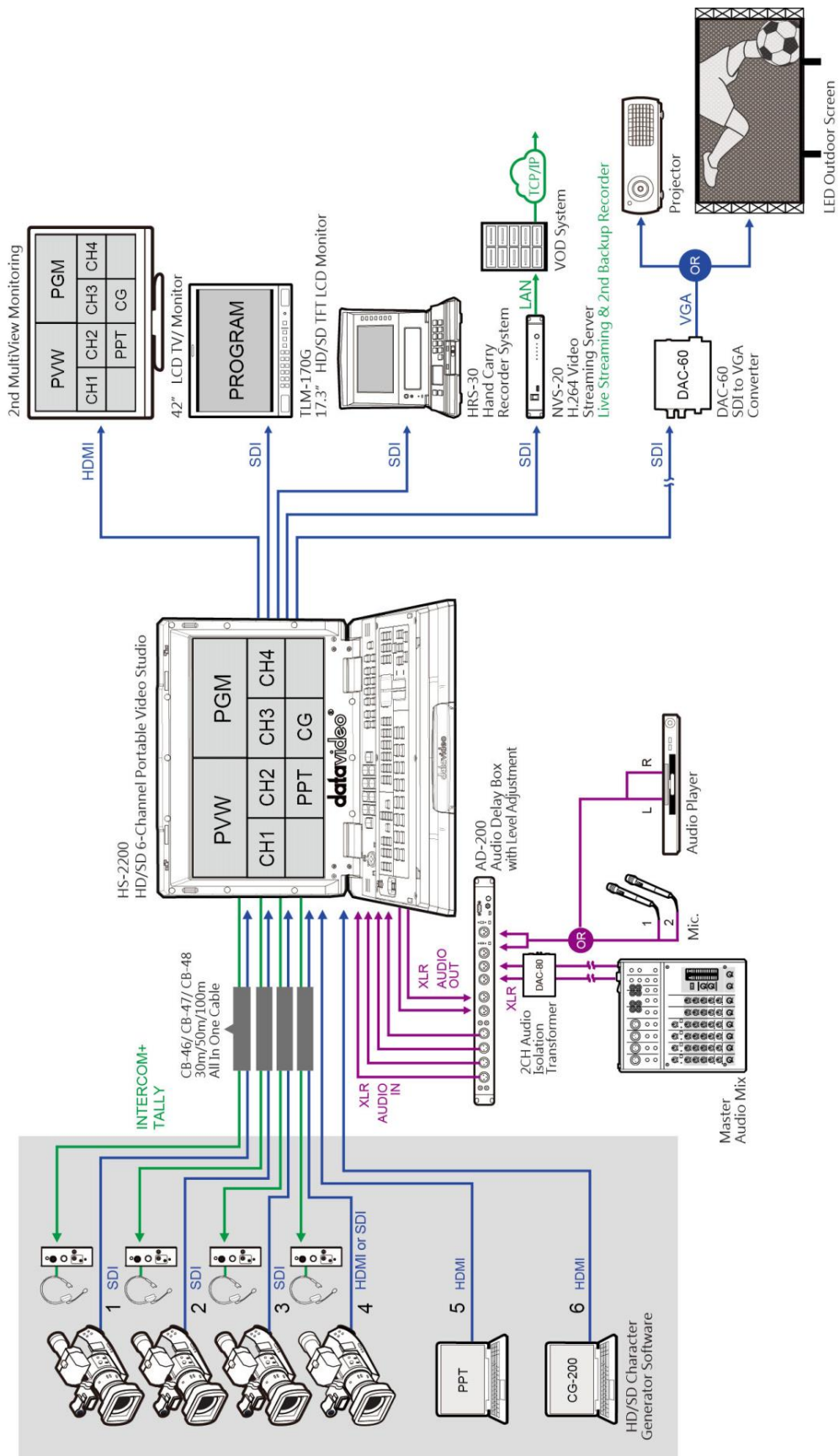
			mode)					
<b>9</b>	0	0	0	0	0	0	0	0
<b>10</b>	BIN7	BIN6	BIN5	BIN4	BIN3	BIN2	BIN1	BIN0
<b>11</b>	File Length byte 0	FL0	FL0	FL0	FL0	FL0	FL0	FL0
<b>12</b>	Length Byte 1	FL1	FL1	FL1	FL1	FL1	FL1	FL1
<b>13</b>	Length Byte 2	FL2	FL2	FL2	FL2	FL2	FL2	FL2
<b>14</b>	Length Byte 3	FL3	FL3	FL3	FL3	FL3	FL3	FL3

## Example Setup

Type A:

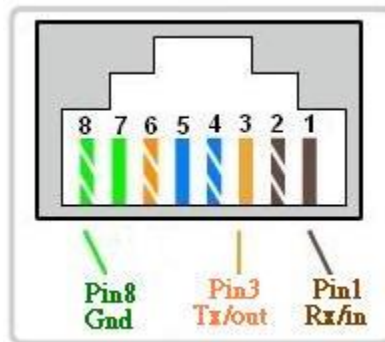


## Type B:



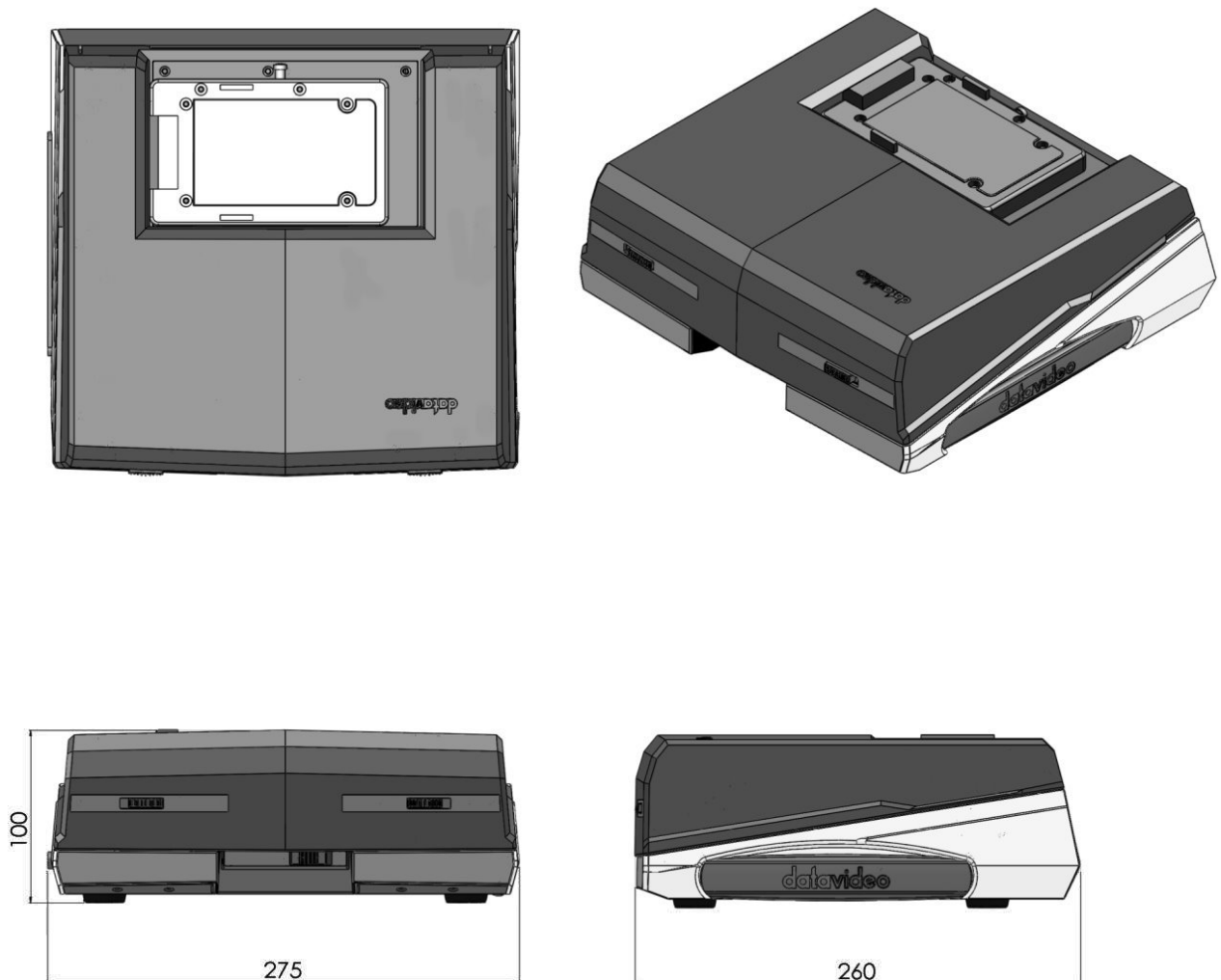
## ***RJ-45 Pinout***

The diagram below depicts the RJ-45 pinout for connection to the RS-232 port.



## ***Dimensions***

All measurements in millimetres (mm).



## Specifications

General Specifications	
Video Standard	HD/SD
Video Format	1080P 23.97/24Hz 1080i 50/59.94/60Hz 720P 50/59.94/60Hz 480i / 576i
Storage Medium	2.5" HDD / SSD, Max capacity 1T GB * Note: SSD is recommended
Estimated Record Time (min per 10GB)	SD:22(50Mbps) ~75(8Mbps) HD: 10 (125Mbps)~68 (10Mbps)
How to retrieve Recorded Content	Removable HDD/SSD, transfer data via USB 3.0
Recorded File Format	MXF OP1A, MOV
Video Recording Bit Rate / Color Sampling	<b>MPEG2 Long GOP HD:</b> 1. 10Mbps 4:2:0 1440x1080/1280x720, 2. 25Mbps 4:2:0 1440x1080/1280x720, 3. 35Mbps 4:2:2 1920x1080/1280x720, 4. 50Mbps 4:2:2 1920x1080/1280x720, 5. 65Mbps 4:2:2 1920x1080/1280x720, 6. 120Mbps 4:2:2 1920x1080/1280x720,  <b>MPEG2 Long GOP SD</b> 1. 8Mbps 4:2:0 720x480/720x576 2. 15Mbps 4:2:2 720x480/720x576 3. 30Mbps 4:2:2 720x480/720x576 4. 50Mbps 4:2:2 720x480/720x576  <b>MPEG2 I-Frame Only HD</b> 1. 100Mbps 4:2:2 1920x1080/1280x720 2. 125Mbps 4:2:2 1920x1080/1280x720  <b>MPEG2 I-Frame Only SD</b> 1. 25Mbps 4:2:2 720x480/720x576 2. 50Mbps 4:2:2 720x480/720x576
Audio Recording Format	Uncompressed PCM
Time Code	Yes
External Sync/Genlock	Yes, Black Burst & Tri-level w/loop thru
Power Failure Protection	Content saved up to last second before power failure

Panel Specifications	
Screen Size	10.1"
Resolution	1280 ) H ( × 800 ) V (
Dot Pitch	0.0565 ) W ( × 0.1695 ) H ( mm
Active Area	216.96 ) W ( × 135.60 ) H ( mm
Interface	
Video Input Signal	1 x SDI
Monitoring/ Playback Output	1 x SDI(input loop thru) 1 x HDMI ; 1 x SDI (Out)
Analog Audio Input	N/A
Audio Output	1 x 3.5mm jack for external speaker Speakers 2 x 3W Earphone : 3.5mm standard interface
Embedded Audio	SDI Input / Output (8CH ) HDMI Output (8CH)
Time Code	1 x Input (BNC) 1 x Output (BNC)
Sync Reference	1 x Input (BNC) 1 x Output (BNC)
Phone Charger and Light	4 x USB
F/W Upgrade	1 x USB
Power	- 1 x DC In 12V - External Battery (V-Mount / anton bauer): 14.4V * Note: does not support 7.2V battery
Power Switch	- Main power switch on the rear On: system on / Off: system off  - Monitor power switch: On: monitor on / Off: monitor off



## Notes

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## Notes

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## Notes

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## Service & Support

It is our goal to make owning and using Datavideo products a satisfying experience. Our support staff is available to assist you to set up and operate your system. Contact your local office for specific support requests. Plus, please visit [www.datavideo.com](http://www.datavideo.com) to access our FAQ section.



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