Long Recording Time of 4.5 Hours

The HVR-DR60*® can record HDV 1080i streams from a compatible HDV camcorder or DVCAM/DV camcorders. The internal 1.8 inch hard drive (HDD) offers storage capacity of 60 GB which translates into a long 4.5 hours (270 minutes) recording time for both formats. HDV files can be recorded as either AVI files (v2.0) or QuickTime (.mov) files.

Hybrid Operation for Reliable Recording and Archiving

The HVR-DR60 offers a hybrid recording function, in which video and audio data along with the time code is recorded simultaneously to the hard drive and camcorder tape. Writing the quality that important cuts could get lost or accidentally deleted. The hybrid function also facilitates instant archiving of source footage – which in many cases does not allow for retakes. After a shoot, operators can immediately archive the source tapes and use the HVR-DR60 material as work footage. This saves the time and effort required to copy the source footage to a separate high-capacity medium.

Direct File Access from a Computer

When connected to a computer via an i.LINK connection, the HVR-DR60 is recognized by the computer as a standard external drive. Hence, its recorded footage can be accessed directly like any normal drives. This saves the time previously required for digitizing material from the tape to the computer. Furthermore, video data loaded on the HVR-DR60 can be transferred to a computer running compatible nonlinear editing software at a high speed of approximately 270 MB/second (around three times faster than real time), which drastically reduces the time needed to copy source material to the editor’s local drive. These features allow operators to focus on more creative and productive editing tasks.

FEATURES

For reliable recording and archiving of your source footage, the HVR-DR60 offers a hybrid recording function, in which video and audio data along with the time code is recorded simultaneously to the hard drive and camcorder tape. Writing the quality that important cuts could get lost or accidentally deleted. The hybrid function also facilitates instant archiving of source footage – which in many cases does not allow for retakes. After a shoot, operators can immediately archive the source tapes and use the HVR-DR60 material as work footage. This saves the time and effort required to copy the source footage to a separate high-capacity medium.

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Hybrid Operation

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SPECIFICATIONS

- **File System**: FAT32
- **Video Format**: MPEG-2-TS (.m2t)
- **Audio Format**: AVI-Type1 (.AVI), RAW-DV (.DV)
- **Built-in Output Device**: LCD monitor
- **Interface**: IEEE 1394a, 6-pin connector
- **Operating Instructions**: i.LINK cable (6-pin to 4-pin, 80 cm)
- **Weight**: 8 oz (230 g)
- **Dimensions**: 7.3 (W) x 4.0 (D) x 1.4 (H) inches (185 x 101 x 35 mm)

**Notes**

* HDV and the HDV logo are trademarks of Sony Corporation and Victor Company of Japan, Limited.
* All non-metric weights and measurements are approximate.
* For complete safety, operating and maintenance instructions, refer to the operating instructions supplied with your camcorder. Refer to the documentation supplied with any device with an i.LINK connector for information on compatibility, operating conditions, and proper connection. Not all products with an i.LINK connector will necessarily communicate with each other.
* The IEEE 1394 connector on the HVR-DR60 is designated as an i.LINK connector. Not all products with an IEEE 1394 connector will necessarily communicate with each other. Information on compatibility, operating conditions, and proper connection can be obtained from your nearest Sony office or authorized dealer.
In HDV mode, interruptions in time code and video may appear in L Series batteries.* 

Speed, reliability, operability, and versatility are key concerns in any video production. The HVR-DR60 offers direct access to recordings, which makes the time-consuming digitizing process a thing of the past. After a shoot, you can simply connect the unit to a compatible nonlinear editor and edit your footage instantly. The HVR-DR60 offers a repeat playback function that allows recordings to be instantly accessed and previewed on the LCD monitor of the connected camcorder for a quick review of recordings.

**Independent Recording**

The HVR-DR60 can disregard the rec trigger or recording status of the camcorder and allow recording to be started and stopped using its own control buttons. The control operation of the HVR-DR60 is independent of camcorder operations.**

**Checking the Operational Status on the HVR-V1U**

On the LCD monitor and viewfinder of the HVR-V1U, the operators informed of both the camcorder and hard drive recording folder name, etc. can be checked. This helps protect the HDD from being damaged when the unit is accidentally dropped and subject to impact.**

**HDD Smart Protection**

HDD Smart Protection is a technology that protects the HDD from damage. When the HDD is subject to strong impact or shock, the following actions will be taken to protect the HDD.

1. Buffer shock detectors hold the HDD in place, helping to prevent external shock from being transmitted when the HDD is subject to impact.
2. A 3G sensor detects gravitational acceleration in three dimensions. When the 3G sensor detects an impact on the HDD, it is automatically turned off to protect the HDD from being damaged.
3. A buffer memory can store 3G sensor data (3 seconds of video and audio footage). Recordings are made by first writing the 3G sensor data to the buffer, and then writing the buffer contents to the HDD. Consequently, if the 3G sensor temporarily detects shock, a quick buffer write protects the HDD from shock. If the 3G sensor fails to detect shock, it is continuously monitored to ensure buffer data is not lost.

**User-free Area**

When triggering the repeat function of the HDD, the camcorder displays a user-free area so the HVR-DR60 may be disabled to provide reliable recording performance.

**Incorporating the HVR-DR60 with Other Equipment**

When using the HVR-DR60 with other equipment, it is possible to achieve the HVR-DR60’s full performance. The HVR-DR60 can be directly connected to equipment such as the HVR-V1U HDV Camcorder, the DSR-450WS camcorder, and the DSR-PD170 camcorder. For more information, please refer to the instruction manual of the equipment for details on connecting and using the HVR-DR60.
In HDV mode, approximately 0.5 seconds of the video captured camcorder for a true taste of L Series batteries. This allows viewing before and after the camcorder rec start button is pressed may be lost.

The HVR-DR60 can disregard the rec trigger or recording status of the camcorder and allow recording to be started and stopped using it’s own control buttons. This control is only independent of camcorder operation when the camcorder rec control buttons are pressed.

**VERSATILE RECORDING MODES**

The HVR-DR60 can be used with HDV and DVCAM camcorders that are equipped with an i.LINK connector. Three recording modes can be selected to support various camcorder models and operational needs.

**SYNCRO mode**
When using camcorders that support external rec control, such as the HVR-V1U and HVR-A1U, DSR-250, DSR-450, and DSR-400, according to the HVR-DR60 a trigger signal is transmitted from the camcorder rec start button.

**FOLLOW mode**
When using camcorders that do not support external rec control, such as the HVR-A1U and DSR-450, the FOLLOW mode can be used to start and stop recording of the HVR-DR60. In the mode the HVR-DR60 periodically checks the status of the camcorder and allow recording to be started and stopped using it’s own control buttons.

**ONE-TAP mode**
When using camcorders that do not support external rec control, such as the HVR-A1U and DSR-450, the FOLLOW mode can be used to start and stop recording of the HVR-DR60. In the mode the HVR-DR60 periodically checks the status of the camcorder and allow recording to be started and stopped using it’s own control buttons.

**INDEPENDENT RECORDING**

The HVR-DR60 can be used with camcorders that support external rec control, such as the HVR-V1U and HVR-A1U, DSR-250, DSR-450, and DSR-400, according to the HVR-DR60 independance of camcorder operation.

To trigger recording of the HVR-DR60, most HDV camcorders require a tape to be loaded. However, this is not the case when using the HVR-V1U. The camcorder has a unique rec start/stop trigger that controls tape transport to the HVR-V1U.

Using the control buttons of the HVR-DR60, stored footage can be instantly accessed and previewed on the LCD monitor of the camcorder as a quick review of recordings.

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Using the control buttons of the HVR-DR60, stored footage can be instantly accessed and previewed on the LCD monitor of the camcorder as a quick review of recordings.

**REPEAT PLAYBACK**

The HVR-DR60 offers an excellent function that allows repeating of one selected clip or clips to be repeated and recorded, via the i.LINK connector to an i.LINK compatible device.

**ADDITIONAL FEATURES WHEN USED WITH THE HVR-A1U HDV Camcorder**

When used with the HVR-A1U camcorder, the HVR-DR60 offers additional unique convenient features.

1. Repeat playback of recorded footage is possible.
2. The cache buffer, which allows continuous playback and stored IP address.

**LONG OPERATING HOURS USING COMMON CAMCORDER BATTERIES**

The HVR-DR60 uses batteries that support HDV and DVCAM camcorders, i.e., the HVR-V1U, HVR-A1U and DSR-250, DSR-450, and DSR-400, according to the HVR-DR60 can run continuously up to 5.5 hours (based on continuous use) or 10.6 hours (longer operating hours are achieved when the camcorder batteries are used alone). Long operating hours using common camcorder batteries are achieved using standard HDV camcorder batteries.

**COMPACT AND LIGHTWEIGHT**

The HVR-DR60 measures 10 x 6.1 x 0.7 inches (W x D x H) and only weighs about 0.4 kg (1.7 lbs) weight. It can be mounted on a camcorder’s sideplate using the supplied shoe adapter, or attached to an optional VCT-1BP Bracket.
Revolutionizing HDV and DV Productions — Streamlining Your Workflow from Acquisition, to Editing, to Material Archiving

Speed, reliability, operability and versatility are key concerns in any video production. The Sony HVR-D300 HD Hard Disk Recording Unit offers stunning innovations for all aspects of the production process — from acquisition to editing, and onwards to material archiving.

Extremely compact and lightweight, the HVR-D300 can be mounted on a camcorder, thereby converting it to a hybrid recording system consisting of both hard disk and tape.

The benefits of integrating the HVR-D300 with a tape-based camcorder are limitless. After a shoot, you can simply connect the unit to a compatible nonlinear editor and edit your footage instantly. The HVR-D300 offers direct access to recordings, which makes the time-consuming digitizing process a thing of the past.

And for peace of mind in the field, the HVR-D300 only requires one battery for your most important source footage, by acting as a backup recording device, allowing long events to be recorded continuously without any cumbersome tape exchanges.

Finally, by using the HVR-D300 as your edit source feed, you can immediately archive footage to hard disk. This provides a safe copy of your all-important source footage, and eliminates the time and effort usually required to dub work tapes.
**Long Recording Time of 4.5 Hours**

HVR-DR60* can record HDV/AVCHD streams from a compatible HD camcorder or DVCAM/DVcamcorder. The internal 1.8-inch hard disk drive (HDD) offers storage capacity of 60 GB which translates into a long 4.5 hours (270 minutes) recording time for both formats.

AVX or AV3D drives are recorded as RAW files (*1), while DVCAM/DV streams are recorded as AV-AVI (Type1)*2 or RAW files.*3

**Hybrid Operation for Reliable Recording and Archiving**

The HVR-DR60 offers a hybrid recording function, in which video and audio material along with time code are recorded simultaneously to the hard drive and camcorder tape. Writing the quality that important clips could get lost or accidentally deleted. The hybrid function also facilitates instant archiving of source footage—which in many cases does not allow for retakes. After a shoot, operators can immediately archive the source tape and use the HVR-DR60 material as work footage. This saves the time and effort required to copy the source footage to a separate high-capacity medium.

When connected to a computer via an i.LINK connection, the HVR-DR60 is recognized by the computer as a standard external drive. When a clip is selected, its recording can be selected directly via any normal video editor. The files previously recorded on the hard drive can be transferred to a computer running compatible nonlinear editing software at a high speed of approximately 80 Mb/s (around three times faster than real time), which drastically reduces the time needed to copy source material to the editor’s local drive. These features allow operators to focus on more creative and productive editing tasks.

**Direct File Access from a Computer**

When connected to a computer via an i.LINK connection, the HVR-DR60 is recognized by the computer as a standard external drive. When a clip is selected, its recording can be selected directly via any normal video editor. The files previously recorded on the hard drive can be transferred to a computer running compatible nonlinear editing software at a high speed of approximately 80 Mb/s (around three times faster than real time), which drastically reduces the time needed to copy source material to the editor’s local drive. These features allow operators to focus on more creative and productive editing tasks.

**HVR-DR60**

DVCAM Camcorder

HDV Camcorder

RAW-DV

DV-AVI/

MPEG-2-TS

i.LINK

IEEE 1394

**Features and Specifications**

**Features**

- Long Recording Time of 4.5 Hours
- Hybrid Operation for Reliable Recording and Archiving
- Direct File Access from a Computer

**Specifications**

- **Format**: HDV 1080i stream
- **Supported Operating Systems**: Windows XP Professional (Service Pack 2), Mac OS X (v10.3)
- **Recording Time**: 4.5 hours (270 minutes) recording time for both formats.
- **Recording Capacity**: 60 GB*
- **Interface**: IEEE 1394a, 6-pin connector
- **File System**: FAT32
- **Display**: 128 x 64 dots
- **Dimensions**: 23.02 x 11.5 mm (picture size)

**Supplied Accessories**

- Shoe adaptor
- i.LINK cable (6-pin to 4-pin, 80 cm)
- Operating instructions
- Wrist strap

**Weight**: 8 oz (230 g)

**Power Requirements**: DC 7.2 V (battery pack), DC 8.4 V (AC adaptor)

**Power Consumption**: 2.7 W (in recording mode with LCD monitor on)

**Storage Temperature**: 32 to 104 °F (0 to 40 °C)

**Operating Temperature**: 20 to +60 °C

**Power Consumption**: 2.7 W (in recording mode with LCD monitor on)

**Other Features**

- **Format HVR-DR60 for next shoot**
- **Feed movie files**
- **档案 recorded tape for repurposing**
- **Archive recorded tape for repurposing**

**www.sony.com/HDV**

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Sony Electronics Inc.

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Features and specifications are subject to change without notice.
Long Recording Time of 4.5 Hours

The HVR-DR60™® Hard Disk Recording Unit can record HDV™ files from a compatible HDV camcorder or DVCAM™ device from a compatible DVCAM camcorder. The internal 3.0-inch hard disk drive (HDD) offers storage capacity of 60 GB which translates into a long 4.5 hours (270 minutes) recording time for both formats. HDV™ files are recorded as native HDV files (.m2t) while DVCAM/DV files are recorded as DV-AVI Type1* or RAW-DV™ files.

Hybrid Operation for Reliable Recording and Archiving

The HVR-DR60 offers a hybrid recording function, in which video and audio material along with time scale is recorded simultaneously to the hard disk and camcorder tape. Writing the quality that important shots could get lost or accidentally deleted. The hybrid function also facilitates instant previewing of source footage – which in many cases does not allow for retakes. After a shoot, operators can immediately preview the source tapes and use the HVR-DR60 material as work footage. This saves the time and effort required to copy the source footage to a separate high-capacity medium.

Direct File Access from a Computer

When connecting a computer via an i.LINK connection, the HVR-DR60 is recognized by the computer as a standard external drive, allowing its recorded footage to be accessed directly like any normal external drive. This saves the time previously required for digitizing material from the tape to the computer. Furthermore, video material on the HVR-DR60 can be transferred to a computer running compatible nonlinear editing software at a high speed of approximately 30 Mbps (around three times faster than real time), which drastically reduces the time needed to copy source material in the editing local drive. These features allow operators to focus on more creative and productive editing tasks.

For more information, visit www.sony.com/HDV

www.sony.com/HDV

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