

FireStore™

DV Disk Recording Solutions

Capture Format
Playback
Record Edit
Store Data



REMOVABLE
DISK DRIVES

From Camera To NLE - Instantly!

There is no quicker way to get from acquisition to editing than with the FireStore family of products featuring Direct To Edit (DTE™) Technology.

Only FireStore products from Focus Enhancements feature industry leading DTE Technology which is the only DV disk recording solution that records video directly to hard disk in NLE native file formats. Recording NLE native file formats completely eliminates the need to capture, transfers clips or convert clips in order to begin editing.

Most importantly, FireStore will free up more time to shoot, produce and create.

The future of DV video production has arrived for all applications with the FireStore family of DTE Technology products.

NATIVE
FILE
FORMATS



CAMCORDER
MOUNTABLE

FOCUS
enhancements

FireStore™

DTE™
TECHNOLOGY

FireStore™ FS-3

COMPATIBLE CAMCORDERS:

Sony DSR
Full Size DV Cam

Ikegami DV Cam

Panasonic
Full Size DV

Canon DV

JVC Full Size DV
(with DR-DV5000)

and more!

(see back page for complete list)

WHAT IS DTE™ TECHNOLOGY?

DTE, or Direct To Edit Technology, is the future of digital video for ENG, field production, the desktop, and the studio because it merges the steps of acquisition and capturing. Only DTE Technology converts the camera's DV output to any chosen native NLE file format, as it records to hard drives. With partner members including Ikegami and JVC Professional, DTE Technology is the ideal choice for professional DV disk recording.

ELIMINATE CAPTURING!

Capturing, or the task of transferring hours of footage from tape to disk, is a real time process that comes between acquisition and creation. Research shows that most editors spend about 25 hours per month just capturing. That is 37 workdays a year that are unproductive! With DTE Technology, edit-ready clips are recorded directly to internal or external FireWire disk drives as Native NLE file formats while they are shot!

WHY NATIVE FILE FORMATS?

Any video professional knows not all NLE systems use the same DV based file format. The unique ability of DTE Technology to record in NLE native file format such as DV OMF for Avid Xpress DV, QuickTime for Apple Final Cut and AVI 2 for Adobe Premiere, means footage is identical to the format your NLE captures in. This means clips can be used directly in the NLE's timeline without having to transfer or convert files before use. When connected to a Mac or PC-based DV NLE system, a drive with DTE recorded clips will appear on the desktop, and the clips can be dragged directly to the NLE's timeline. No capturing, no file transfer, no file conversion, no connection hassles. You'll be editing seconds after you have finished shooting.

SAVES YOU TIME!

If you edit with Apple Final Cut Pro, Apple iMovie, Adobe Premiere, Canopus DVStorm, Canopus DVRaptor, Pinnacle DV500, Ulead Media Studio Pro, MatroxRT2000/2500, Matrox DigiSuite DTV, Matrox LX, Sonic Foundry Vegas Video and more, only FireStore products featuring DTE Technology record clips in native Raw DV (.dv), AVI Type 1, AVI Type 2, Canopus AVI, Matrox AVI, QuickTime (.mov) or Avid OMF (.omf) file formats.

FireStore FS-3



ENG/Field Production DTE Disk Recorder



For the ultimate integration of FS-3 with JVC DV camcorders, contact JVC Professional about FireStore DR-DV5000!



Mount to Camcorders with Anton/Bauer Plates



Mount to Camcorders with V-Mount (IDX/Sony) Plates

MOUNT DIRECTLY TO YOUR DV CAMCORDER

The newest member of the FireStore family is FS-3. FS-3's small size and rugged chassis have been designed to bring DTE Technology to your existing DV Camcorder. Featuring industry standard Anton/Bauer, V-Mount, PAG Lock or NP battery mount plates, you not only power FS-3 from your existing battery system, you conveniently mount FS-3 between your camcorder and battery system on any full size camcorder featuring a DV input/output port! Now any DV camcorder can easily be enhanced to include DTE disk recording capability!

REMOVABLE DRIVES AND FLEXIBLE POWER

FireStore FS-3 features a disk drive slot for the FSHDD-1 removable FireWire disk drive so you are not limited to a fixed, internal disk drive. It is also possible to daisy chain additional drives to the external 6-pin FireWire port, allowing ultra long record times. Power consumption is a low 7.5W preventing excess drain on your power source.

EXTENSIVE SHOCK PROTECTION

FireStore FS-3 also features a host of shock prevention features. Not only does the FSHDD-1 FireWire disk drive feature outstanding shock performance, an 8MB cache and an internal shock gasket, the FS-3 unit also features an electronic shock cache and a file error correction utility ... all designed so your video is secure!

FLEXIBLE RECORD, PLAYBACK AND CONTROL OPTIONS

Additional features include retro cache and retro disk record (so you'll never miss a shot!), time lapse record, a multitude of playback options and a VTR like interface. Shoot to disk only or simultaneously to disk and tape - the perfect confidence recording, archive and back-up! Remote control options include AV/C via FireWire, infrared remote, wired GPI or RS-232C. FireStore FS-3 also features full partition and format capabilities so you can work with virtually any FireWire drive at any time.

NEW! FireStore FSHDD-1



FireWire Disk Drive

The flexibility of FS-3 is extended with the FSHDD-1 FireWire disk drive that slots directly into the FS-3 enclosure. Featuring robust 2 1/2" 5400RPM drives with an 8MB cache, FSHDD-1 FireWire drives come in 40GB (184 minutes), and soon, 80GB (369 minutes) versions!

FireStore FS-1



Portable/Desktop DTE Disk Recording Module

DTE TECHNOLOGY FOR THE FIELD OR DESKTOP

We designed FireStore FS-1 to bring DTE technology to the field or desktop. With the optional carrying case and industry standard NP battery kit, FireStore FS-1 is ideal for shooting video direct to disk in the field. Alternately, FireStore FS-1 is ideal as a desktop NLE capture station. In this use, any DV source can be captured to disk without tying up an NLE system or an editor's time.

FLEXIBLE CONTROL

Record, play and navigate using the FireStore FS-1 VTR-type controls. Navigate from clip to clip with the push of a button. No cueing of tapes is required. Multiple speed forward and backward search (including single frame) and loop playback (single clip or entire disk) are standard features. FireStore FS-1 can be slaved to a DV camcorder's Record/Pause modes or controlled via AV/C commands from NLE systems and other DV devices via the FireWire connection. Format and partition any connected FireWire disk drive with FireStore FS-1 allowing you to use virtually any drive!

ULTRA LONG RECORD TIMES

Up to four FireWire disk drives can be daisy chained to FireStore FS-1. Various combinations of disk drives and capacities can be chosen to continuously record almost any length event. Use a combination of HDD sizes to tailor record times to your particular needs.

FireStore FS-2



Studio DTE Disk Recorder

DTE TECHNOLOGY FOR THE STUDIO

FireStore FS-2 is designed to bring DTE Technology into the studio. With a rackmount chassis, extensive analog and digital audio/video support, reference video, external timecode and industry standard control capabilities, the FireStore FS-2 digital disk recorder is ideal as a tape deck replacement in broadcast, post, security, medical or presentation applications.

EXTENSIVE RECORDING AND PLAYBACK FEATURES

FireStore FS-2 features flexible record options including retro disk and retro cache record, good clip markers and user definable time lapse record - all using DTE Technology native NLE file formats. When it's time to playback, FireStore FS-2 allows complete control including play, reverse play, stop, forward one frame, backward one frame, multi speed fast forward/rewind and slow motion. Move instantly from clip to clip or set multiple in and out points for custom playback sequences.

A VARIETY OF A/V INPUT/OUTPUTS AND CONTROL OPTIONS

To seamlessly integrate into any facility, FireStore FS-2 has the full complement of A/V inputs and outputs including full signal transcoding! Analog I/O includes composite, S-video, component and balanced audio. Digital I/O includes serial digital (SD-SDI), 25Mb/s DV (FireWire/iLink) and AES/EBU digital audio. Standard control options include RS-422 and AV/C (Via FireWire). Additionally, FireStore FS-2 features a 10/100 Base T ethernet port.

FLEXIBLE DISK DRIVE OPTIONS

FireStore FS-2 features a removable drive bay for an IDE disk drive. Additionally it is possible to daisy chain up to 5 external FireWire disk drive volumes from the units asynchronous FireWire port for ultra long recordings without compromising the quality of the source video.

FEATURE	FS-3	FS-2	FS-1
DTE Technology	✓	✓	✓
DV 25 Mb/s FireWire I/O	✓	✓	✓
Embedded 2 and 4-ch DV Audio	✓	✓	✓
2-ch (16-bit, 48kHz)			
4-ch (12-bit, 32kHz)			
Records DV Source Timecode	✓	✓	✓
FireWire AV/C Control	✓	✓	✓
Daisy Chain Multi Drives	✓	✓	✓
Full Status LCD Display	✓	✓	✓
VTR Like Playback Capabilities	✓	✓	✓
Loop Playback Capabilities	✓	✓	✓
Full Disk Partition & Format	✓	✓	✓
2-Year Warranty	✓	✓	✓
AC or DC Operation	✓	✓	✓
Battery Power Option	✓	✓	✓
Suitable for Field Operation	✓		✓
Rack Mountable		✓	
Direct Camera Mount	✓		
Electronic Shock Cache	✓		
External Timecode Input		✓	
Analog Video I/O (Composite, Component & S-Video)		✓	
Serial Digital I/O (SD-SDI)		✓	
Reference Video Loop		✓	
Balanced Audio I/O		✓	
AES/EBU Digital Audio I/O		✓	
Sony 9-pin RS-422 Control		✓	
Flash Upgradeable System OS	✓	✓	
Retro Disk Record	✓	✓	
Retro Cache Record (10 sec.)	✓	✓	
Definable Time Lapse Record	✓	✓	
Mark Playback In/Out Points		✓	
Good Shot Marker	✓	✓	
Removable Hard Disk	✓	✓	

APPLICATIONS

FireStore FS-3

- ENG / EFP Production
- Sports Production
- Wedding & Event Production

FireStore FS-2

- Presentation Video Source
- Broadcast Tape Deck Replacement
- Time Lapse Recorder
- Film to Disk Transfer
- NLE / Linear Edit Source/Recorder
- Endless Video Program Looping
- Security Recorder/Player
- Medical Recorder/Player
- Web Based Video Storage
- Industrial Monitoring
- Video DJ and Karaoke
- Outside Broadcast

FireStore FS-1

- Portable Field Production
- Desktop Capture Station
- NLE / Linear Edit Source/Recorder
- Digital Video Archiving
- Surveillance Recorder
- Education

DTE COMPATIBLE NLE APPLICATIONS:

- Adobe Premiere
- Apple Final Cut Express
- Apple Final Cut Pro
- Apple iMovie
- Avid XpressDV
- Avid Xpress Pro
- Canopus DVStorm
- Canopus StormRack
- Canopus DV RaptorRT
- in-Sync Blade
- Matrox RT2000/2500
- Matrox DigiSuite DTV
- Matrox DigiSuite LX
- Matrox RTMac
- MGI/Roxio VideoWave
- Pinnacle DV500 Plus
- Sonic Foundry Vegas Video
- Ulead Media Studio Pro
- ... Plus Many More!

FireStore™

TECHNICAL SPECIFICATIONS

FireStore FS-3

Available with Anton/Bauer, V-Mount (Sony/IDX) NP or PAG compatible plates

Input/Outputs

- DV Video I/O - 25 Mb/s (1 x 6-pin IEEE-1394)
- External HDD I/O - up to 400 Mb/s (1 x 6-pin IEEE-1394)
- Slot Internal HDD I/O - up to 400 Mb/s (1 x 6-pin IEEE-1394)
- GPI & RS-232C Control (1 x 3.5mm mini jack)

Power

- 2-Wire AMP connection (From Battery-Camera)
- V-Mount (Sony/IDX), Anton/Bauer (3-Stud) NP or PAG Plates
- Anton/Bauer Digital Battery and IDX Synchron Pass Thru
- 4-pin XLR DC input
- 12V to 17V, 7.5W

Physical Specification

- 2.5lbs (1.1kg) w/ FSHDD-1 Disk Drive
- 4 1/8" x 3 1/2" x 6 1/4" (105mm x 89mm x 159mm)

Audio/Video/Timecode Specification

- 25Mb/s, 8-bit 4:1:1 (NTSC-DV) or 4:2:0 (PAL-DV) video (model dependant)
- SMPTTE or DV embedded Timecode (Drop or Non Drop)
- 2-ch., 16-bit or 4-ch., 12-bit embedded Digital Audio

DTE File Formats

- RawDV (.dv), AVI Type 1, AVI Type 2, Canopus AVI, Matrox AVI (.avi), QuickTime (.mov) or Avid DV-OMF (.omf)

Disk Information

- Internal Disk Type (Slot): FSHDD-1 FireWire Disk Drive
- External Disk Type: User Supplied IEEE-1394a FireWire
- Disk Format: FAT32
- FAT32 FireWire HDD compatible with Windows 98SE, ME, 2000, XP and Mac OS9 and OSX

Compliance and Warranty

- CE, C-Tick and FCC
- 2-Year Limited Warranty

Compatible Camcorders

- JVC: Use FireStore DR-DV5000 for ultimate integration. Includes viewfinder status and enhanced control features. Contact JVC Professional for details.
- Sony: DSR-200A, -250, -300A, 370, 500 and 570
- Ikegami: HL-DV7 and DV5
- Panasonic: AG-DV200, AJ-D215H, AJ-D410
- Canon: XL1 and XL1s (using Canon MA-100/-200 & either IDX A-E2XL1 or Anton/Bauer QR-XL1c)
- Hand held MiniDV & DVcam camcorders: Use Anton/Bauer Stasis mount, DV Cam, DVC Pro, Mini DV, DV

FireStore FS-2

Input/Outputs

- Component - Y, Pr, Pb (3 x BNC in, 3 x BNC out)
- Sync (1 x BNC in, 1 x BNC out)
- S-Video - Y/C (1 x 4-pin DIN in, 1 x 4-pin DIN out)
- Serial Digital - SD-SDI (1 x BNC in, 1 x BNC out)
- Timecode (1 x BNC in, 1 x BNC out)
- Balanced Audio (2 x XLR in, 2 x XLR out)
- AES/EBU Digital Audio (1 x XLR in, 1 x XLR out)
- Reference Video Loop Thru (2 x BNC)
- DV Video I/O - 25 Mb/s (1 x 6-pin IEEE-1394)
- DV Video Pass Thru - up to 400 Mb/s (1 x 6-pin IEEE-1394)
- External HDD I/O - up to 400 Mb/s (1 x 6-pin IEEE-1394)
- FireWire Computer I/F (1 x 6-pin IEEE-1394)
- 10/100 Base T Ethernet

Control

- GPI & RS-232C Control (1 x 3.5mm mini jack)
- RS-422 (1 x DB9 Serial)

Power

- 110V to 220V AC, 50 - 60 Hz, Auto Ranging 100W
- IEC Power Input

Physical Specification

- 18.41lbs (8.36kg)
- 19" x 17.3" x 3.5" (483mm x 440mm x 89mm)

Audio/Video/Timecode Specification

- 25Mb/s, 8-bit 4:1:1 (NTSC-DV) or 4:2:0 (PAL-DV) video (user switchable)
- SMPTTE or DV embedded or External Timecode (Drop or Non Drop)
- 2-ch., 16-bit or 4-ch., 12-bit embedded Digital Audio

DTE File Formats

- RawDV (.dv), AVI Type 1, AVI Type 2, Canopus AVI and Matrox AVI (.avi), QuickTime (.mov) or Avid DV-OMF (.omf)

Disk Information

- Internal Disk Type: 120 GB, IDE, 7200 RPM
- External Disk Type: User Supplied IEEE-1394a FireWire
- Disk Format: FAT32
- FAT32 FireWire HDD compatible with Windows 98SE, ME, 2000, XP and Mac OS9 and OSX

Compliance and Warranty

- CE, C-Tick and FCC
- 2-Year Limited Warranty

Compatible DV Formats:

- DV, MiniDV, DVcam and DVCPPro

FireStore FS-1

Input/Outputs

- DV Video I/O - 25 Mb/s (1 x 4-pin IEEE-1394)
- External HDD I/O - up to 400 Mb/s (1 x 6-pin IEEE-1394)
- FireWire Computer I/F - up to 400 Mb/s (1 x 6-pin IEEE-1394) Control
- GPI & RS-232C Control (1 x 3.5mm mini jack)

Power

- 12-17V DC, 2A (AC Adapter included)
- Mini Jack power Connector
- Optionally Connect ACSS-0013-01 carry case and BATT-0004-01 battery pack

Physical Specification

- 3.5lbs (1.6kg)
- 2 3/4" x 6" x 8.5" (70mm x 152mm x 216mm)

Audio/Video/Timecode Specification

- 25Mb/s, 8-bit 4:1:1 (NTSC-DV) or 4:2:0 (PAL-DV) video (model dependent)
- SMPTTE or DV embedded Timecode (Drop or Non Drop)
- 2-ch., 16-bit or 4-ch., 12-bit embedded Digital Audio

DTE File Formats

- RawDV (.dv), AVI Type 1, AVI Type 2, Canopus AVI and Matrox AVI (.avi), QuickTime (.mov) or Avid DV-OMF (.omf)

Disk Information

- Internal Disk Type: None
- External Disk Type: User Supplied IEEE-1394a FireWire
- Disk Format: FAT32
- FAT32 FireWire HDD compatible with Windows 98SE, ME, 2000, XP and Mac OS9 and OSX

Compliance and Warranty

- CE, C-Tick and FCC
- 2-Year Limited Warranty

Compatible DV Formats:

- DV, MiniDV, DVcam and DVCPPro

FIRESTORE ACCESSORIES



ASYF-0633-01
FireStore FS-1 Field Kit -
Includes: FireStore FS-1, FireStore Case, 25 Watt/Hour NP Battery.



ACSS-0013-01
FireStore FS-1 Case
Custom designed nylon case featuring internal NP battery slot, external DC connector and power switch, storage for HDD/cable, internal aluminum and foam support structure, velcro flap cover with clear window for viewing status



BATT-0004-01
25 Watt/Hour NP-Style Battery
Capable of about two hours of continuous recording time, while powering FireStore FS-1 and one HDD (requires ACSS-0013-01 for operation)



FSHDD-1 Disk Drives
--ASYF-0707-01
Twin-Pack 40GB FireWire Disk Drive

ASYF-0689-01
40GB (184 minutes) FireWire Disk Drive

ASYF-0690-01
80GB (369 minutes) FireWire Disk Drive

ASYF-0723-01
2GB (9 minutes) Solid State Disk Drive



ASYF-0640-01
FireStore FS-1 Field Kit PAL



ASYF-0669-01
FireStore FS-1 and FS-3 Field AC Adapter
110-220V AC wall supply with 4-pin XLR type power connector (requires ACSS-0013-01 for operation with FS-1)



ASYF-0649-01
FireStore FS-1 Serial Cable
converts from industry standard RS-232 to FireStore's control port. Control your FireStore remotely

CBLA-0113-01
FireStore FS-3 Serial Cable

ACSS-0018-01
FS-3 Remote Control (Infrared)

ACSS-0019-01
FS-3 Remote Control (Wired)