

SONY

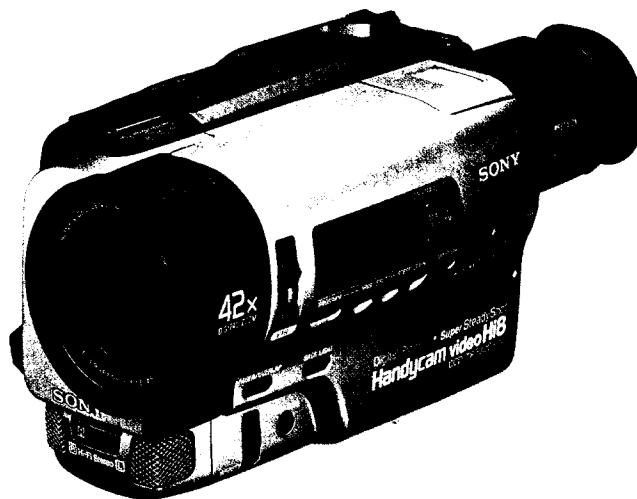
HANDYCAM® CAMCORDER HI8™ SERIES SPRING 1997

FEATURES AND
SPECIFICATIONS
SUBJECT TO CHANGE
WITHOUT NOTICE

CCD-TR3300

Camera/VTR:

- Video Hi8™ System
- 1/4": Precision CCD (410,000 Pixels)
- AccuPower™ Battery System
- 3-Mode Program AE with AE Shift
- Manual White Balance
- Manual Focus Ring
- 8 Picture Effects
- Super Digital Noise Reduction



Step-up Features:

- Super SteadyShot® Picture Stabilization
- Precision Color Viewfinder (180,000 Pixels) with Solar Window™ Panel
- Precision 42x Digital Zoom
- Hi-Fi Stereo⁴ Sound with 3-Capsule Stereo Zoom Mic
- Indexing System
- RC Time Code/Data Code

Editing:

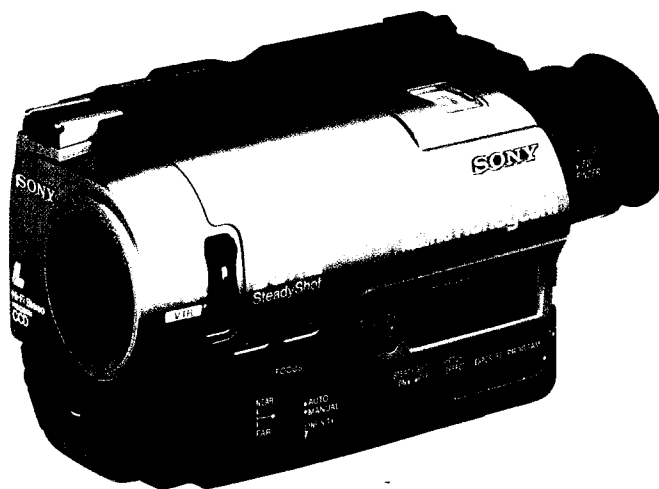
- RC Time Code/Data Code
- Indexing System
- Flying Erase™ Head
- Control L (LANC)
- Edit Search™



CCD-TR930

Camera/VTR:

- Video Hi8™ System
- Precision 30x Digital Zoom
- LaserLink™ Wireless Connection System
- 5-Head Recording System
- SteadyShot® Picture Stabilization
- Advanced Color Viewfinder with Solar Window™ Panel and Power Save
- Illuminated VTR Buttons
- 6-Mode AE
- Time-Base Correction
- Optimum Recording Control
- Super Digital Noise Reduction
- Hi-Fi Stereo⁴ Sound
- 8 Digital Picture Effects
- Advanced Preset Titler with 2 Custom Titles
- AccuPower™ Battery System
- Manual Focus Dial



Editing:

- Flying Erase Head
- Control L (LANC)
- Edit Search



Hi8 EDITING CAPABILITIES

Sony's state-of-the-art editing components make it possible to enjoy the fun and versatility of a professional-quality at-home editing suite. Couple the 8mm camcorder with the EVS-5000 editing deck for highly sophisticated recording/playback features previously reserved for pro decks.

SONY Hi8™ HANDYCAM® CAMCORDER:

Reaching the Pinnacle of Video Picture and Sound Quality

Sony Hi8 Handycam Camcorders take home video to entirely new heights. Higher resolution, greater signal-to-noise ratio, and a color picture that maintains more detail during editing all result in

remarkably vivid home video. Sony invented Hi8 technology, and with the 1997 lineup of Hi8 Handycam Camcorders, Sony takes the technology to breathtaking new levels.

worry FREE

SONY Hi8 HANDYCAM FEATURES:

The High Points of Hi8

- Hi8 delivers over 400 lines of horizontal resolution—even better than the broadcast TV standard.
- Sony Hi8 Handycam Camcorders record in AFM Hi-Fi stereo, providing true left/right separation for more realistic and dynamic sound.

AccuPower™ System



- This precision Lithium-Ion power-management feature displays the amount of power remaining on the battery within an accuracy of 1 minute. The information is displayed in the viewfinder for convenience.

Super Digital Noise Reduction

- Works both in record and playback to improve picture quality. Even tapes recorded on other camcorders will benefit from this feature.

Precision Digital Zoom

- The power to zoom in incredibly close without adding the grainy, mosaic texture experienced with other camcorders.



Regular Zoom



Precision Digital Zoom

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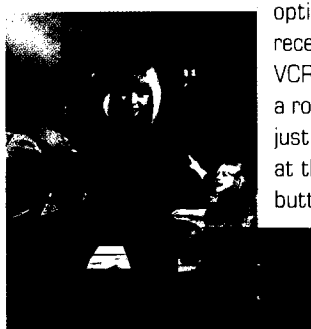
NEW FEATURES:

5-Head Recording System



The 5-Head System utilizes two recording heads for a standard recording mode of up to 2.5 hours. The long-record mode uses two separate specially designed heads for maximum picture quality when recording up to 5 hours. The remaining Flying Erase™ Head provides "glitch-free" starts and stops.

LaserLink™ Wireless Connection System



The new LaserLink Wireless Connection System eliminates the need to hook up your Sony Handycam Camcorder to your TV to view your videos. With the optional IFT-R10 infrared wireless receiver plugged directly into your TV or VCR, you can beam your videos across a room without wires. Once connected, just point your Handycam Camcorder at the receiver, press the LaserLink button, then press play. With an operating range of up to 16 feet, transmitting your videos from the coffee table or your favorite chair has never been this "Worry Free."

Optimum Recording Control

- Analyzes the condition of the video heads and the tape, and makes adjustments to maximize performance, resulting in longer life for the video heads, as well as improved picture quality.

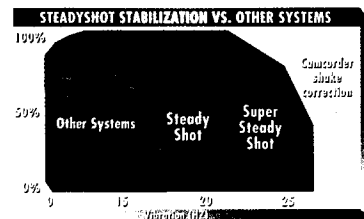
SteadyShot® Picture Stabilization



- Smooths and steadies images while recording, virtually eliminating effects of camera shake.
 - Built-in motion sensors and Hyper-Precision CCD technology—with 470,000 pixels—produce clear, highly detailed pictures without compromising image size or quality.
- Available on Handycam Camcorder CCD-TR930.

Super SteadyShot® Picture Stabilization

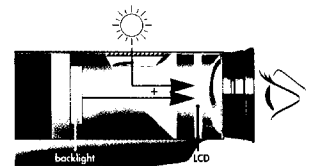
- Super SteadyShot takes picture stabilization to the next level, compensating for high-frequency shake (over 20 Hz) such as vehicle vibration.



Available on
Handycam Camcorder
CCD-TR3300.

Advanced Color Viewfinder with Solar Window™ Pane and Power Save

- With 113K pixels to provide excellent color and resolution, the Advanced Color Viewfinder lets you see vivid, realistic images. The Sony exclusive Solar Window Panel allows



- ambient light into the viewfinder to brighten the display. Even on the brightest days, when other viewfinders appear washed out Sony's viewfinder remains bright and vivid.
- Power Save saves on battery wear by shutting down the viewfinder when it senses that the viewfinder is not being used.

Precision Color Viewfinder with Solar Window™ Panel and Power Save

- The Precision Color Viewfinder with Solar Window Panel utilizes 180K pixels to provide even higher levels of resolution and detail. With resolution approaching 400 horizontal lines, controlling manual focus and exposure control becomes extremely easy and accurate. (For benefits of Power Save, see above.)

Available on Handycam Camcorder CCD-TR3300.

AUDIO/VIDEO PERFORMANCE		CCD-TR930	CCD-TR3300
Video		Hi8	Hi8
Audio		Hi-Fi Stereo	Hi-Fi Stereo
CCD Imaging Device (gross pixels)		1/4" (470,000)	1/4" (410,000)
Super Digital Noise Reduction		Yes	Yes
Time Base Correction		Yes	Yes
Optimum Recording Control		Yes (Manual)	Yes
Zoom Lens (Variable Speed)		15x	21x
Digital Zoom		30x	42x
SteadyShot® Picture Stabilization		Yes	Yes—Super
Full-Range Auto Focus		Yes	Yes
Digital Camera Signal Processing		Yes—10 Bit	Yes—10 Bit
Instant Recording		Yes	Yes
Super-Long Recording Time		Yes	Yes
Minimum Illumination (Lux) ³		2 Lux	3 Lux (0.1 with Slow Shutter)

CONVENIENCE		
LaserLink™	Yes	
Viewfinder	.55" Advanced Color	.7" Precision Color
3-Mode Recording	Yes	Yes
Self-Illuminating VTR Function Buttons	Yes	Yes
Date/Time, Auto Date Recording	Yes	Yes
Data Code		Yes
Data Search		Yes w/remote
RC Time Code		Yes
Index System		Yes
EZ Menu Setup	Yes	Yes
Viewfinder Meters	Yes	Yes
Intelligent Accessory Shoe	Yes	Yes
Auto Lens Cover	Yes	
Remote Control	Yes	Yes

POWER MANAGEMENT SYSTEM		
AA Battery Holder	Yes	Yes

SPECIAL FEATURES		
Noiseless Still/Slow Motion		Yes
Digital Picture Effects	8-Mode	8-Mode
Special Effects		Yes (Still, Flash Motion, Cut Out)
Audio/Video Digital Fader	Yes (Black, Mosaic)	Yes (Black, Mosaic, Overlap, Wipe)
Advanced Custom Titler	Yes	Yes
16:9 Recording	Yes (Cinema & True)	Yes (Cinema & True)

MANUAL CONTROLS		
Program Auto Exposure	6-Mode	3-Mode (Priority Iris, Shutter, Twilight)
Manual Focus	Yes (Dial)	Yes (Ring)
Manual Exposure	Yes (Dial)	Yes (Iris/Gain)

3-MODE RECORDING: Start, Stop, Snap, and 5 second recording

5-HEAD RECORDING SYSTEM: utilizes 5 heads for maximum picture quality in both SP and LP record modes, and "glitch-free" editing starts and stops.



AA BATTERY HOLDER: even without a charged battery, the camcorder will run for up to 2 hours on six AA batteries.

ADVANCED CUSTOM TITLER: allows for more creativity with videos. 8-preset with 2 custom titles on CCD-TRV930/3300.

ADVANCED COLOR VIEWFINDER WITH SOLAR WINDOW™

PANEL: with 113K pixels to provide excellent color and resolution, the Advanced Color Viewfinder with Solar Window Panel lets you see vivid, realistic images. The Sony exclusive Solar Window allows ambient light into the viewfinder to brighten the display. Even on the brightest days, when other viewfinders "washout," the images in Sony's viewfinder remain bright and vivid.

AUDIO/VIDEO DIGITAL FADER: fade to black or mosaic for creative scene transitions.



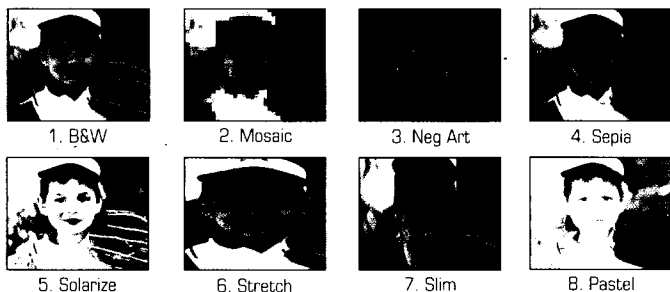
AUTO LENS COVER: protects the optical lens and opens automatically when camera mode is selected.

CONTROL L (LANC): connector for editing interface: connects to Sony VCRs and editing controllers with a Control L jack.

DATA CODE: automatically records date and time in a specially designated area on the tape.

DIGITAL CAMERA SIGNAL PROCESSING: advanced 10-bit Sony technology automatically performs all internal processing digitally—focusing, exposure control (both aperture size and gain control), and color (white balance) control.

DIGITAL PICTURE EFFECTS: 8-digital effect modes provide exciting creative options. Included (in addition to normal mode) are:



EDIT SEARCH™ FEATURE: review the tape in forward and reverse, without leaving camera mode—for quick on-the-spot retakes.

FLYING ERASE™ HEAD: every time recording is stopped and started, Flying Erase head eliminates "rainbow noise" glitches for smooth transitions.



FULL-RANGE AUTO FOCUS: fast, accurate automatic focusing from macro closeup to infinity.

Hi-Fi STEREO⁴: superior Hi-Fi audio quality using Audio Frequency Modulation (AFM) technology in stereo for greater realism.

Hi8™: better horizontal resolution than broadcast TV standard.

HYPER-PRECISION CCD: 470,000 pixels allow camera to capture more detail and superior sharpness at full 30x zoom ratio, and achieve SteadyShot™ picture stabilization without compromising picture quality.

LASERLINK™ WIRELESS CONNECTION SYSTEM: lets you beam your videos from your camcorder to your TV from up to 16 feet away without need for wires.



MANUAL BACKLIGHT CONTROL BUTTON: compensates for strong light behind subject.



Manual Backlight Control on

MANUAL FOCUS: allows for a smooth "hands on" creative feel.

MINIMUM ILLUMINATION (LUX³): all Handycam Camcorders perform with amazing sensitivity even in extremely low light.

NOISELESS STILL/SLOW MOTION: allows for crystal-clear freeze frame and slow motion in the viewfinder.

OPTIMUM RECORDING CONTROL: maximizes the life and performance of the tape and video heads.

PRECISION COLOR VIEWFINDER WITH SOLAR WINDOW

PANEL utilizes 180k pixels to provide even higher levels of resolution and detail. With resolution approaching 400 horizontal lines, controlling manual focus and exposure control becomes extremely easy and accurate. And with the exclusive Solar Window Panel, the image is always bright and sharp.

PROGRAM AUTO EXPOSURE (3- OR 6-MODE AE): Sony's Program AE system provides 3 or 6 auto positions for a variety of shooting situations. CCD-TR3300 delivers 3-modes: shutter priority, iris priority, and twilight modes. CCD-TR930 delivers 6-modes: sports lesson, spotlight, sunset moon, beach and ski, landscape, and portrait modes.



1. Sports



2. High-Speed Shutter



3. Twilight Mode

QUICK RECORD: recording starts instantly, to help make sure important shots are never missed.

REDUCED POWER CONSUMPTION: for longer recording time.¹

REMOTE CONTROL: full-function wireless remote control that lets you put yourself in the picture.

SELF-ILLUMINATING VTR FUNCTION BUTTONS: located on the top of the camcorder, function buttons illuminate only when needed (in player mode).



STEADYSHOT® PICTURE STABILIZATION: eliminates hand shake without compromising picture quality.



SUPER DIGITAL NOISE REDUCTION: Works both in record and playback to improve picture quality. Even tapes recorded on other camcorders will benefit from this feature.

TIME-BASE CORRECTION: reduces unwanted jitter for better picture quality.

VIEWFINDER METERS: conveniently located in the camcorder viewfinder.

ZOOM: with the CCD-TR3300, 21x optical zoom (15x on CCD-TR930) lets you zoom in on your subject or pull back for wide shots—Precision 42x Digital Zoom (30x on the CCD-TR930) uses a Precision CCD to maintain excellent image detail.

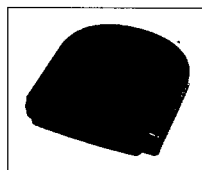
SPECIFICATIONS

Lens	15.1 variable speed (1.7-42 sec.) power zoom lens, f = 4.1-61.5mm, F 1.4-2.4, filter diameter 37mm (CCD-TR930); 21.1 variable speed (1.98-43 sec.) power zoom lens, f = 3.9-61.9mm, F 1.6-3.6, filter diameter 52mm (CCD-TR3300)
Video Signal	NTSC standard ¹
Video Recording System	Helical scanning FM system
Audio Recording System	Helical scanning FM system
Video Output	Phono jack (CCD-TR930/3300), S-Video (CCD-TR930/3300)
Video Input	S-Video (CCD-TR930/3300)
Audio Output	Phono jack, Stereo (CCD-TR930/3300)
Audio Input	Phono jack Stereo ⁴ (CCD-TR930/3300)
Control L (LANC) Terminal	Stereo Mini-minijack
Headphone Jack	Minijack, Stereo (CCD-TR930/3300)
Mic Jack	Minijack, Low Impedance Stereo, plug-in power (CCD-TR930/3300)
Power Requirements	7.2V battery pack; 7.5V AC Power Adapter (CCD-TR930/3300)
Microphone	Electret condenser microphone, Stereo (CCD-TR930/3300)

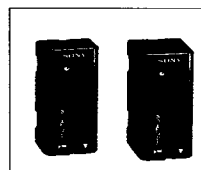
SUPPLIED ACCESSORIES

	CCD-TR930	CCD-TR3300
AC Adapter	AC-V316	AC-V316
Rechargeable Battery	NP-F330	NP-F530
Lithium Battery (built in)	CR2025	CR2025
Wireless Remote (2X AA)	RMT-708	RMT-715
Shoulder Strap	Included	Included
A/V Stereo Cable	Included	Included
Dry Cell Battery Case	Included	Included

OPTIONAL ACCESSORIES



IFT-R10: LaserLink™ Wireless Receiver
• 16-Foot Range



NP-F730: Rechargeable Lithium-Ion Battery
AccuPower™ System, 2700mAh



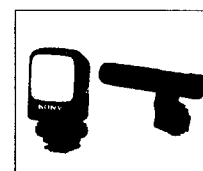
VCT-R610: Remote Capable Tripod
• Control LANC Compatible



SPK-TRV1: Water-Resistant Sport Pack
• TR and Vision Models



MPK-TRV1
• Underwater Housing



HVL-S3D: Intelligent Video Light (3 Watt)
ECM-HS1: Intelligent Microphone (Variable Pick-Up Pattern)



ACC-KIT65
Includes:
• Full-Size Tripod
• NP-68 Rechargeable Battery
• Soft Carrying Case



DCC-515A: DC Car Adapter for Lithium-Ion Batteries



VCL-0637H: 0.6x Wide-Angle Lens
• Fits 37mm Lens

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Features and specifications are subject to change without notice. Non-metric weights and measurements are approximate. For operation use and feature description see user's manual.

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¹ Reduced Power Consumption: Actual time may vary, using optional NP-4500 battery.

² AA Battery Holder: Actual time may vary, with LCD monitor off, using optional Sony alkaline batteries.

³ Minimum Illumination: There is no standard procedure for testing minimum illumination.

⁴ Stereo: Stereo sound playback requires the use of a stereo-capable TV/monitor.

Direct Playback: On NTSC American Standard TV

SONY®

Sony Electronics, Inc.
1 Sony Drive
Park Ridge, NJ 07656
<http://www.sony.com/camcorder>

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