

HRHD1+

SINGLE-CHANNEL DIGITAL VIDEO RECORDER

Honeywell's new HRHD1+ is the ideal replacement for traditional time-lapse recorders that provides all the benefits of digital recording with minimal investment and training. The HRHD1+ features Honeywell's advanced proprietary compression algorithm XtraStor, providing more storage on smaller media without compromising image quality, resulting in days, weeks and even months of high-resolution video storage.

With its versatile processing capabilities, the HRHD1+ can capture video at up to 60 images per second in duplex mode while allowing selection of recording speed and picture quality. Additional features include alarm and motion detection, user-defined recording schedules and multiple-recording modes.

The HRHD1+ generates compact encrypted archive video clips as self-executable files. Honeywell's minibank format produces an executable (.exe) file containing both the video clip and reader, allowing the user to simply run the clip in its original, unalterable format on any PC without the need for reader software.

Built-in network connection provides remote viewing and control over PSTN, LAN/WAN, ISDN or DSL. The Windows-based remote software package allows secure operation and management of multiple HRHD units, including the HRHD plus series (4+, 9+, 16+) and HRHD410.

The DVR can be placed on a desktop or rack mounted for easy access to the front panel controls. The convenient jog shuttle operates like a VCR, making it simple to operate. The intuitive, multi-lingual, graphical user interface provides easy-to-use displays for everyday operation and system setup.

With its superior digital technology, flexible feature set and user-friendly operation, the HRHD1+ provides a powerful, digital solution for a variety of video surveillance applications.



Features

- Long-term video storage using XtraStor technology
- Displays live, high-definition video (720 x 480 NTSC; 720 x 576 PAL) with built-in removable hard drive option up to 250GB
- Duplex recording mode with a capture rate of up to 60ips NTSC (up to 50ips PAL)
- Single-channel audio recording/single-channel audio playback (records audio at 15ips NTSC/12.5ips PAL or faster)
- Multiple search engines (date/time, calendar, event)
- Two record modes (time, event)
- VCR-style playback — freeze-frame, fast-forward/ reverse and slow-forward/reverse without image streaking or tearing
- 1 looping video input
- Compatible with Honeywell Video and other manufacturers' multiplexers
- Archive video clips directly to a USB device
- Remote control capability through RS485 port
- Front panel buttons and jog shuttle display familiar operation
- Scalable recording resolution:
 - 336 x 224 or 672 x 224 – NTSC
 - 336 x 272 or 672 x 272 – PAL
- Remote access through PSTN, LAN/WAN (internal NIC), DSL and ISDN (remote access software included)
- Linux OS – embedded in flash

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FEATURES CONTINUED

Ideal VCR Replacement

The HRHD1+ is compatible with Honeywell Video and other manufacturer's multiplexers and quads. While the HRHD1+ can replace a time-lapse recorder, it offers features that make it much more powerful and easier to use than even the most advanced VCR.

High-Resolution Image Capture

With up to 672 x 224 NTSC (672 x 272 PAL) recording resolution, the HRHD1+ digital recorder uses XtraStor technology to record and retrieve video from its internal disk storage. This advanced video compression technique permits long-term video storage. With a capture rate of up to 60ips in Duplex mode, critical information is processed accurately and efficiently.

Flexible Recording Options

The HRHD1+ allows recording speeds of up to 60ips, allowing selection of both the recording speed and picture quality. Further options exist to control recording by schedules, external inputs or motion detection. This flexibility provides a customized video processing system for each installation.

Remote Access Software

Using the supplied Remote Access Software (RAS), you can control and configure your HRHD1+ unit from virtually any location. The RAS program is an integrated software tool that controls system management, video monitoring and image playback of multiple HRHD remote sites. The RAS software provides secure password protected communication.

Instantaneous Search and Retrieval

Recording digitally eliminates the need to search through hours of videotape. The HRHD1+ allows quick searches of its video database by event, calendar or date/time.

Exceptional Picture Quality with XtraStor

HRHD1+ delivers crystal-clear display resolution up to 720 x 480 NTSC (720 x 576 PAL). With its multiple, user-definable image quality settings, the recorder is flexible and meets the needs of a vast majority of applications. XtraStor technology enables high-quality video while using minimal hard drive space.

Advanced Video Encryption

Every recorded image contains a unique fingerprint that is chained to the preceding and succeeding images (chained-fingerprinting). This ensures that the video images cannot be modified with any available PC software – enabling a solid chain of evidence.

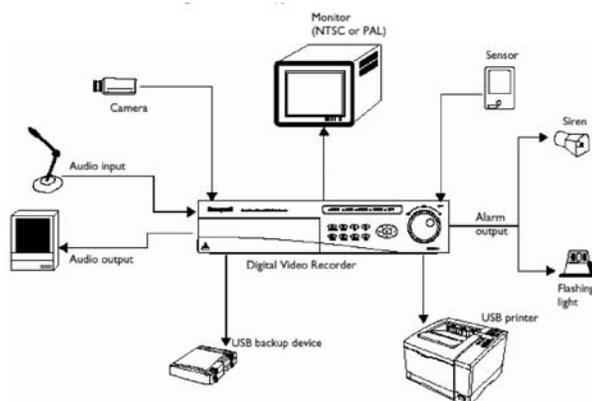
Easy to Install, Configure and Operate

The HRHD1+ works like a VCR. Its user-friendly GUI and familiar front panel controls provide the benefits of digital recording with minimal training. Its convenient jog shuttle dial allows video review using step-by-step or variable speed control. The complete set of front panel buttons provides simple and intuitive operation.

Convenient Storage and Archive Options

HRHD1+ offers removable hard drive storage of up to 250GB with S.M.A.R.T. monitoring. The USB port can be used to copy video clips to an external USB hard disk drive, USB flash memory or USB CDRW. Video accessed via the Ethernet or modem connection using RAS software can also be archived remotely.

System Interconnection



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SPECIFICATIONS

RECORDING TIMES

HRHD1+ Recording Time (based on 80GB)											
Image Recording Compression Rate		Recording Picture Quality Mode (336 x 224 NTSC)									
		LOW 2 KB		STANDARD 4 KB		HIGH 8 KB		V-HIGH 12 KB			
(sec/img)	(img/sec)	Hours	Days	Hours	Days	Hours	Days	Hours	Days		
0.02	60	185	7.7	93	3.9	46	1.9	31	1.3		
0.03	30	370	15.4	185	7.7	93	3.9	62	2.6		
0.07	15	741	30.9	370	15.4	185	7.7	123	5.1		
1.00	1	11,111	463.0	5,556	231.5	2,778	115.7	1,852	77.2		

HRHD1+ Recording Time (based on 160GB)											
Image Recording Compression Rate		Recording Picture Quality Mode (336 x 224 NTSC)									
		LOW 2 KB		STANDARD 4 KB		HIGH 8 KB		V-HIGH 12 KB			
(sec/img)	(img/sec)	Hours	Days	Hours	Days	Hours	Days	Hours	Days		
0.02	60	370	15.4	185	7.7	93	3.9	62	2.6		
0.03	30	741	30.9	370	15.4	185	7.7	123	5.1		
0.07	15	1,481	61.7	741	30.9	370	15.4	247	10.3		
1.00	1	22,222	925.9	11,111	463.0	5,556	231.5	3,704	154.3		

HRHD1+ Recording Time (based on 250GB)											
Image Recording Compression Rate		Recording Picture Quality Mode (336 x 224 NTSC)									
		LOW 2 KB		STANDARD 4 KB		HIGH 8 KB		V-HIGH 12 KB			
(sec/img)	(img/sec)	Hours	Days	Hours	Days	Hours	Days	Hours	Days		
0.02	60	579	24.1	289	12.1	145	6.0	96	4.0		
0.03	30	1,157	48.2	579	24.1	289	12.1	193	8.0		
0.07	15	2,315	96.5	1,157	48.2	579	24.1	386	16.1		
1.00	1	34,722	1,446.8	17,361	723.4	8,681	361.7	5,787	241.1		

Video	
Signal Format:	NTSC or PAL (Auto detects)
Video Input:	Composite: 1 looping input, BNC, auto-terminating SVHS: One Y/C
Monitor Outputs:	Composite: 1 output BNC SVHS: One Y/C
Display Resolution:	720 x 480 NTSC, 720 x 576 PAL
Recording Resolution:	336 x 224 or 672 x 224 NTSC; 336 x 272 or 672 x 272 PAL
Playback/Record Speed:	60ips or 30ips NTSC; 50ips or 25ips PAL
Audio:	Input:1 line in, RCA Output:1 line output, RCA
Alarm:	Inputs:1 TTL, programmable as NC/NO Output:1 TTL, open collector Reset Input:1 TTL
Multiplexer Interface:	One Shot Record (SHOT): ..1 TTL Series In (SRI):1 TTL Series Out (SRO):1 TTL Trigger Out (TRI):1 TTL

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SPECIFICATIONS

Video continued	
Network Connectivity:	RJ-45: 10/100 Mbps Base Ethernet RS232C Serial Port: DB9 (P) RS485: 4-connector terminal block
Storage:	Removable EIDE hard drive provides up to 250GB of internal storage with S.M.A.R.T. monitoring Clip Copy: USB HDD, USB CDRW, USB Flash Memory, via RAS
Ports:	USB: 1 port on front panel (USB1.1), Clip Copy, upgrade, printer
Operating System:	OS: Linux Firmware: OS in Flash Memory
Physical:	Dimensions(W x H x D): 16.9 in. x 3.5 in. x 14.0 in. (43.0 cm x 88 cm x 35.5 cm) Weight:11.2 lb. (5.1 kg) Shipping weight:16.3 lb. (7.4kg) Operating Temperature: ..41°F - 104°F (5°C - 40°C) Operating Humidity: 0% - 90% Power:100-240V~, 0.5A, 50/60Hz
Approvals:	FCC, CE, UL

Ordering	
<u>HRHD1 R250 X</u>	
	X PAL NTSC
	Storage 80 80GB Removable IDE HDD 160 160GB Removable IDE HDD 250 250GB Removable IDE HDD
	Model HRHD1+ Single-Channel DVR

NOTE: Honeywell reserves the right, without notification, to make changes in product design or specifications.