Fusion IV Rev B NVR Series

The Fusion IV NVR Series is ideal for video surveillance systems requiring a scalable recording and video management platform for an end-to-end digital system. A single Fusion IV NVR supports simultaneous recording, searching and system management for up to 32 IP cameras and 16 channels of audio. Multiple NVRs can be combined to support a large-scale system deployment for systems requiring recording and management of hundreds of cameras. Central control of Fusion NVR systems and systems operating a mix of NVRs and DVRs is provided by multi-site Fusion Video Management Software (FVMS).

In addition to new system roll-out to realize the benefits of operating a state-of-the-art IP surveillance network, Fusion IV is ideal for upgrading the head-end recording solution of existing systems. This is because Fusion IV supports multiple compression formats, including MJPEG, MPEG4, and H.264, as well as a wide variety of IP camera drivers.

The Fusion IV hardware utilizes powerful processor and memory technology allowing support of multiple simultaneous operations such as live view, playback, PTZ control, recording and interface to custom application software using the Fusion API/SDK. System expansion of recording and management resources has never been easier–by connecting additional Fusion IV NVRs to the local area network.

The front panel provides easy access to the DVD-RW drive, one USB v2.0 port, and six field-replaceable hard drives. This provides system engineers a fast, convenient method to expand NVR storage capacity in the field.

Market Opportunities

The continual growth of IP networks across the globe has lead to convergence of many organization's building security system needs and their IT system security facilities. This has resulted in a strong demand for all-IP end-to-end security system deployment. Fusion IV NVR provides the scalability and operational power to address the needs of a wide variety of applications including large retail, educational, telecommunications sites, and many other applications. When the need is for a network digital recording and management security solution, the answer is the Fusion IV NVR.

Features:

Hardware

- IP recording up to 32 channels
- Megapixel camera support
- HDMI and DVI-I/VGA ports for local live viewing
- Internal storage capacity from 1 TB to 12 TB
- External storage options from 5 TB to 16 TB
- Up to 16 audio channels (with supported IP cameras)
- PTZ control (with supported IP cameras)
- DVD-RW, 7 USB 2.0 ports and 2 USB 3.0 ports
- 10/100/1000 gigabit network standard
- Keyboard control of camera selection and PTZ control
- Windows® 7 embedded operating system

Software

- User software included with each NVR:
  Fusion Server Software - Local user interface
  HFRVS Remote Software - Connect to a single NVR
  HFVMS Remote Management Software -
  Connect to multiple Fusion NVRs/DVRs and HRDP DVRs
- Dynamic DNS support
- Microsoft® Active Directory integration
- Smart Motion, Preview and Index Searches
- Integrated camera discovery protocol
- Integrated access control with WIN-PAK®
- Powerful API available for third party software integration

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Fusion IV Rev B NVR Series

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FEATURES

The Fusion IV system consists of three major components which are included with each unit:
- Server Unit: 8, 16 or 32 channel models with megapixel recording and the powerful Fusion Server Software
- HFRVS, Fusion Remote View Software: allows remote connections to a single Fusion NVR
- HFVMS, Fusion Video Management Software: allows remote operation, configuration and management of multiple Fusion NVRs

The powerful combination of Fusion Server and the feature-rich HFRVS and HFVMS user software suites create an end-to-end digital recording and management solution that make Fusion IV NVR the market leader in new systems technology.

Fusion Server Software

(included with every NVR)

- Complete local configuration and administration.
- High resolution rates - Fusion is able to record resolutions as high as 5 megapixel.
- Multiple types of searching capabilities including Preview Search, Smart Motion Search and Index Search.
- The Preview Search function gives users a quick overview of a 24-hour period. The search can be narrowed down from ten-minute increments to one-minute increments.
- The Fusion Server Software gives users the option to integrate with Honeywell WIN-PAK® access control software.
- Remote notification of alarm events and health check.
- Supports up to five simultaneous connections via HFVMS and HFRVS.

HFRVS Remote View Software

(included with every NVR)

- Looks and functions in the same manner as the Fusion Server Software.
- Remotely connect to a single Fusion NVR.
- Remotely search and export video from the Fusion NVR.
- Control PTZ cameras connected to the Fusion NVR.
- Microsoft® Windows 7, Vista or XP compatible.
- Remotely set up cameras, schedules, sensors, audio, and network functions via the HFRVS Remote Software.

HFVMS Video Management Software

(single workstation license included with every NVR - can also be ordered separately.)

- Complete local configuration and administration.
- Remotely monitor video, audio and alarms.
- Access and export recorded video.
- Create infinite customized user accounts.
- Create remote backup schedules.
- Create custom live camera views.
- Configure Fusion NVRs remotely.
- Connect to multiple Fusion NVRs all at one time.
- Microsoft® Windows 7, Vista or XP compatible.
- Maps feature allows importing of .dxf, .jpg, .wmf and other formats.
- Control cameras with advanced PTZ features.
- Point-of-sale search capabilities.
- Live audio.
- TCP based.

HFRVS and HFVMS Software (Workstation Requirements)

Minimum:
- Intel Core 2 Duo 2.8 GHz (or equivalent)[2]
- 1 GB system memory
- DirectX 9 or higher
- 256 MB+ Nvidia or ATI video card[3]
- 256k network connection[4]

- TCP/IP installed
- Microsoft Windows 7, Vista or XP[5]
- 1280 x 1024 optimal display resolution

Recommended[1]:
- Intel Quad Core i7 processer (or equivalent)[2]
- 2 GB system memory

- DirectX 9 or higher
- ATI 5750 video card (or equivalent)[3]
- 512k network connection[4]
- TCP/IP installed
- Microsoft Windows 7, Vista or XP[5]
- 1280 x 1024 optimal display resolution

[1] Minimum requirements for H.264 solutions and highly recommended for megapixel image rendering.

[2] No support for Xeon processors.

[3] FireMV, NVS and CAD cards are not supported. Dual video cards required for four monitor output. SLI/Crossfire not supported.

[4] Gigabit network highly recommended for LAN environments and configurations running multiple megapixel cameras.

[5] No support for server operating systems.
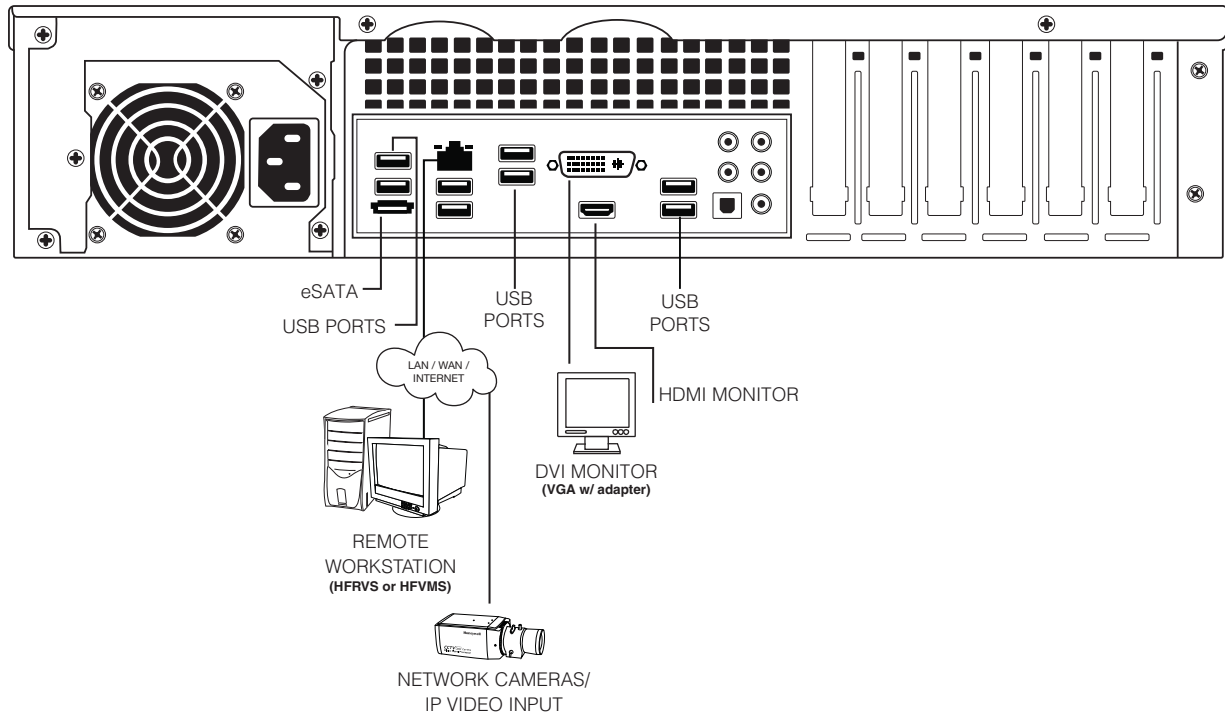
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SPECIFICATIONS

Remote Software and FVMS	
Sessions Maximum per Fusion Recorder	5 simultaneous connections
Administration; Configuration	1 session
Users Viewing Live Video and Retrieving Video	4 sessions
Above with PTZ Control	1 at a time controlling PTZ
Compatibility	Microsoft Windows® 7, Vista, or XP

Recorder Unit	
Video Standard	IP network video
Video Display Format	Up to 120/100IPS @ 720p resolution
Color Control	Brightness, hue and contrast
Recording and Transmission Compression Algorithm	H.264, MPEG-4, MJPEG (depends on camera)
Record Mode	(FIFO) Continuous buffer
Recording Capacity	Hard Drive capacities up to 12TB, see ordering section for details
Recording Rate @ D1 resolution – B units (Global)	8 ch up to 240 ips 16 ch up to 480 ips 32 ch up to 480 ips
Recording Rate @ D1 resolution – P units (Global)	8 ch up to 240 ips 16 ch up to 480 ips 32 ch up to 960 ips
IP Devices and Resolution See document 800-07870 for a list of IP devices supported by Fusion	Various settings up to and including 5-megapixel; based on supported camera resolution options.
Megapixel	• Supports up to 5 MP per channel • Use local Fusion interface & FVMS (multi-site software) to digitally zoom into playback images
Video Motion Detection	Server-side motion detection for IP cameras. IP camera motion detection for specific cameras – see doc 800-07870 for details
IP device I/O	Support for select devices only, see document 800-07870 for details
Removable Media	Built-in DVD-RW option and 9 – USB ports
Still Image	JPEG file format
NTP Client	NTP Time synchronization available
DHCP Enabled	DHCP or Manual IP entry
Port number set-up	Five individual entries for ports
PTZ Protocols Support	Support for select devices only, see document 800-07870 for details
Language Support	English, French, German, Italian, Spanish (EU), Spanish (Americas), Portuguese, Russian, Czech, Polish

Connections	
IP Input for video	10/100/1000 NIC Onboard
Video Output	MAIN-OUT (DVI-I cw VGA adapter or HDMI)
Audio Input/Output	• Audio Input – via cameras (Fusion NVR support for specific cameras only, see document 800-07870 for details) - 8 ch NVR – up to 8 audio input - 16 ch NVR – up to 16 audio input - 32 ch NVR – up to 16 audio input • Audio Output : - 1 x 3.5 mm TRS jack
Sensor Inputs General Purpose	• Via cameras (Fusion NVR support for specific cameras only, see document 800-07870 for details) - 8 ch NVR – up to 8 sensor inputs - 16 ch NVR – up to 16 sensor inputs - 32 ch NVR – up to 16 sensor inputs
Control Outputs	Via cameras (Fusion NVR support for specific cameras only, see Doc 800-07870 for details) - 8 ch NVR – up to 8 sensor outputs - 16 ch NVR – up to 16 sensor outputs - 32 ch NVR – up to 16 sensor outputs
Serial Ports	7 x USB 2.0, 2 x USB 3.0
Internal Storage	SATA HDD, up to six
Networking	10/100/1000 NIC Onboard (Optional 2nd 10/100/1000 NIC)

Electrical	
Input Voltage	110-240V ~ 50/60Hz 7A
Power Consumption	Up to 480 W

Mechanical	
Dimensions (L x W x H)	27.0" x 19.0" x 3.5" 686 mm x 483 mm x 89 mm
Weight	Unit: 30 lbs (12.7kg) to 35 lbs (15.9kg) Shipping: 46 lbs (20.8kg) to 51 lbs (23.1kg)
Construction	Housing: Steel chassis Finish: Black matte paint

Environmental	
Temperature	Operating: 5°C to 40°C (40°F to 104°F) Storage: -10°C to 65°C (14°F to 150°F)
Relative Humidity	0% - 90%, non-condensing

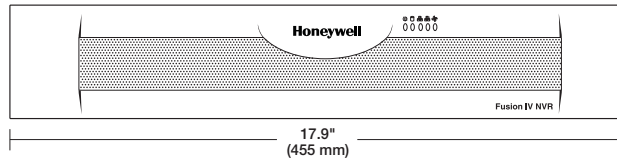| Regulatory	
Safety	ANSI / UL 60950-1
Emissions	FCC Part 15, Subpart B, Class B EN 55022:2006 +A1:2007 (Class B) EN 61000-3-2:2006 + A2:2009 EN 61000-3-3:2008
Immunity	EN 50130-4:1995 + A1:1998 + A2:2003

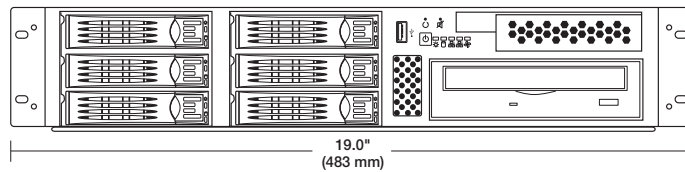# Fusion IV Rev B NVR Series   www.honeywellvideo.com

SYSTEM DIAGRAM

eSATA

USB PORTS

USB
PORTS

USB
PORTS

LAN / WAN /
INTERNET

HDMI MONITOR

DVI MONITOR
(VGA w/ adapter)

REMOTE
WORKSTATION
(HFRVS or HFVMS)

NETWORK CAMERAS/
IP VIDEO INPUT

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SYSTEM DIMENSIONS

Front Bezel

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Fusion IV NVR

17.9"
(455 mm)

Front View

19.0"
(483 mm)

Back View

3.5"
(89 mm)

Side View

27.0"
(686 mm)
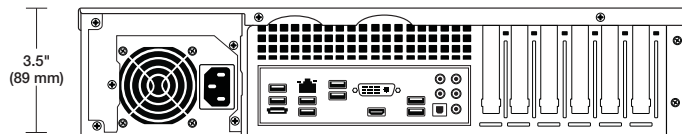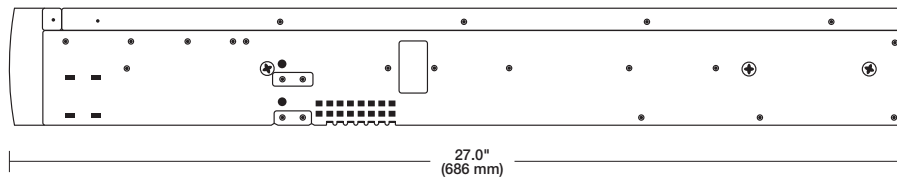
Top View
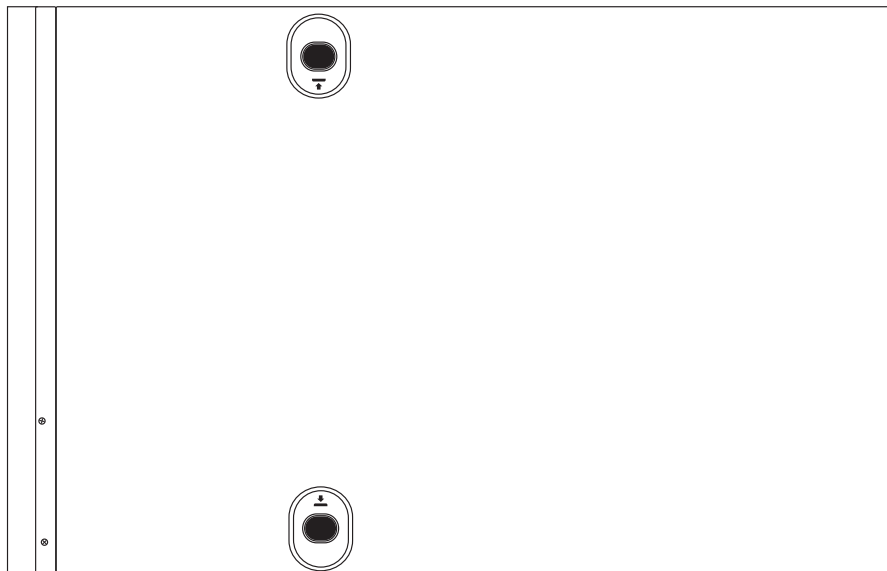
ACCESSORIES AND ORDERING

Field Installed Accessories

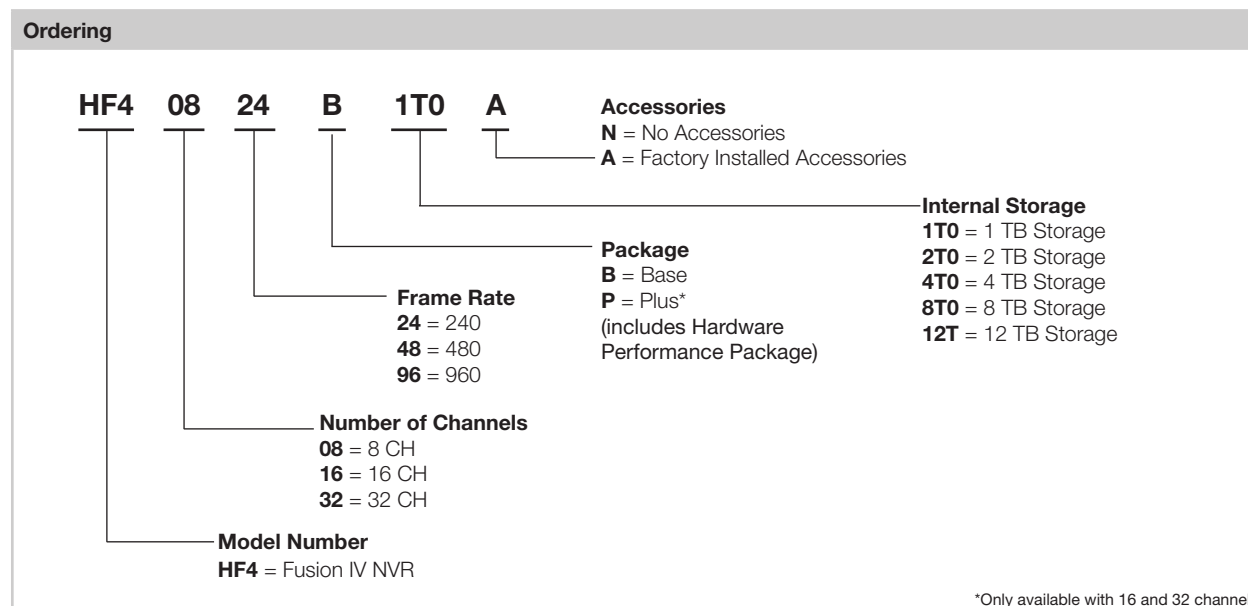|	
HF4HWUPGCPUF	Fusion IV Hardware Performance Package CPU & Memory Field Upgrade
HF4HD2T0	Fusion IV 2 TB Upgrate Kit
HD4HD2T0R	Fusion IV 2TB Raid Upgrade Kit
HF4HD1T0	Fusion IV 1 TB Upgrade Kit
HD4HD1T0R	Fusion IV 1TB Raid Upgrade Kit
HF4USB232	USB to RS232 converter

Software Part Numbers

HFRVS	Fusion Remote View Software
HFVMS	Fusion Video Management Software
HFLICDATA	1 CH Fusion for POS Data License

NVR Software Licenses

HFLICNVR1	Adds 1 CH of NVR to Fusion IV
HFLICNVR4	Adds 4 CH of NVR to Fusion IV
HFLICNVR8	Adds 8 CH of NVR to Fusion IV
HFLICNVR16	Adds 16 CH of NVR to Fusion IV

Factory Installed Accessories

HFDVREXTR5T	External RAID 5 TB — requires separate SCSI adapter
HFDVREXTR8T	External RAID 8 TB — requires separate SCSI adapter
HFDVREXTR16T	External RAID 16 TB — requires separate SCSI adapter
HFDVRSCSI	SCSI interface card
HF4R5	Internal RAID 5 (3-HDD minimum requirement)
HF4HWUPGCPU	Fusion IV Hardware Performance Package, CPU & Memory upgrade
HFDVRGBNIC	Gigabit Ethernet additional port

Other Recommended Accessories

HJC4000	PTZ camera and DVR controller
HF4RMKT	Rack mounting rails

Ordering

HF4	08	24	B	1T0	A

Accessories
N = No Accessories
A = Factory Installed Accessories

Internal Storage
1T0 = 1 TB Storage
2T0 = 2 TB Storage
4T0 = 4 TB Storage
8T0 = 8 TB Storage
12T = 12 TB Storage

Package
B = Base
P = Plus*
(includes Hardware
Performance Package)

Frame Rate
24 = 240
48 = 480
96 = 960

Number of Channels
08 = 8 CH
16 = 16 CH
32 = 32 CH

Model Number
HF4 = Fusion IV NVR

*Only available with 16 and 32 channel

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

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