

KOLLECTOR FORCE

16-Channel Hybrid Digital Video Recorder



- Configured with ViconNet® Video Management Software (VMS)
- Scalable from one to hundreds of recorders
- Support for HD video and Megapixel cameras
- Real-time Hybrid recording of up to 16 analog cameras and up to 8 additional IP cameras
- Support for third-party network cameras
- Embedded Windows® operating system for enhanced security and reliability
- M-JPEG, MPEG-4 and H.264 compression
- High-capacity internal storage
- Removable hard drive option for ease of maintenance
- Solid-state drive option for operating system provides less power usage, faster data access and higher reliability
- Multi-language application
- Advanced video authentication
- Integration with third-party management software using software development kit (SDK)
- Internal 5-bay, RAID Level 5 option

The Kollector® Force combines a robust video management and storage solution that enables you to simultaneously capture, view and store high-quality, high resolution voice, video and data for a comprehensive security solution. The Force helps security organizations reduce system ownership costs, streamline operations and deliver more effective security.

The Force has the power to bridge the transition from analog to IP camera installations. It can record 16 analog cameras and encode the analog inputs for use by the VMS. An additional 8 IP channels can also be recorded, and managed by the system, all with real-time frame rate at 4CIF resolution.

Built for Reliability, Usability, and Low Cost of Ownership

Proven in daily operation in thousands of customer installations worldwide, the Force features an embedded operating system designed for enhanced security and superior reliability. The ViconNet software that powers the Force, provides an open platform that allows integration with IP cameras, including megapixel cameras, encoders and IP edge devices from numerous industry-leading manufacturers.

Powerful Software

ViconNet software provides outstanding functionality and an intuitive interface for administrators, security managers and system operators anywhere on the network. Multi-site users, in particular, benefit from the efficiency of enterprise management options.

Scalability

The Kollector Force provides internal hard drive and internal RAID-5 models. The non-RAID model has external iSCSI RAID device connection capability to extend the total recording time well beyond the limits of the internal hard drives. The system is designed to scale to thousands of cameras with additional Kollector Force models or any of the ViconNet VMS products. Add storage or additional capability as it's needed when it's needed.

Video Performance

Video Level Input:	1.0 V peak-to-peak (140 IRE) nominal.
Luminance:	100 IRE +/- 15%.
Sync:	40 IRE +/- 15%.
Colorburst:	40 IRE +/- 15%.
Video Input Impedance:	75 ohms on BNC connectors.
Video Formats Supported:	NTSC, PAL, EIA and CCIR.
Video Recording Rate:	16 simultaneous channels @ 240 or 480 frames per second, maximum. 30 fps per channel, maximum.
Local Video Quality:	Local analog camera inputs: Selectable using a 4-position bar, from HCIF to 4 CIF. IP cameras : 10 user selectable resolution capture sizes (camera dependent).
Audio Inputs:	Microphone should be 0 dB, 32 KHz bandwidth, 600 ohm impedance, 2 V RMS (1 V p-p) output.
Audio Sampling Rate:	8 KHz/sec/channel.
Audio Data Storage Rate:	Approximately 0.7 GB/day/microphone.
Camera to Recorder Analog Input Video Transmission Distance (coaxial cable distance):	1000 ft (305 m) nominal.
VGA Monitor Output:	SVGA, True-Color Mode with a resolution of 1024 x 768 or 1280 x 1024.
VGA Video Display Modes:	Multi-screen display mode for both live and video playback of 1, 4, 6, 9, 16 cameras.
Panel Indicators:	1 blue power LED used for power status indication. 1 red LED used for HDD indication. 16 green LEDs used for camera detection and recording status.
Panel Key Lock:	Key lock provided on front panel to secure all controls.
Analog Video Inputs:	16 BNC-F connectors.
Monitor Output:	Dual output (1 VGA/1 DVI) connectors.
PTZ Control Port:	One 4-pin terminal block serial port using RS-422 protocol for all 16 channels. Also, connections available through the 16 connectors.
Sensor Input Port:	16 NO/NC connectors, software selectable. Each alarm input is automatically configured as a normally opened (NO) or normally closed (NC) trigger.
Analog Video Output:	S-Video connector and provided adapter cable.

Data Sheet Number: V112-20
Dated: 7/2013

Vicon Data Sheet Part Number: 8009-7112-20-10
Specifications subject to change without notice.

16 x 4 Analog Matrix:

Allows switching any of the local inputs to 4 local outputs. Switcher is controlled through software locally and over the network. Also can be controlled as part of a macro.

Electrical

Input Voltage:	120-230 ±10% VAC, 50/60 Hz.
Current:	1 A @ 115 VAC; 0.5 A @ 230 VAC. Internal RAID: 1.2 A @ 115 VAC; 0.6 A @ 230 VAC.
Power Consumption:	120 W nominal. Internal RAID: 140 W.
Heat Output:	420 btu/hour. Internal RAID: 490 btu/hour.
Power Connector:	Standard 3-conductor female socket.
CPU:	Intel® Core™ i3.
Memory:	2 GB minimum.
OS:	Microsoft® Windows® 7 Embedded.
Storage:	1000 to 8000 GB, depending on model.
DVD Drive:	Internal DVD drive. Not available on internal RAID models.
Network Port:	RJ-45 jack. 100/1000 Mbps.
Keyboard Port:	5-pin DIN jack (PS2) or USB.
Mouse Port:	5-pin DIN jack (PS2) or USB.
USB Ports:	6 (2 front, 4 rear).
Audio Input:	16 input connectors, software selectable.
Certifications:	UL, CE and FCC, Class A.

Mechanical

Application:	Indoor
Mounting:	Standard 19 in. (483 mm) rack mount and stackable, 3RU height.
Dimensions:	5.25" (133.4 mm) H x 18.75" (476 mm) W x 21.25" (540 mm) D, including connectors.
Weight:	37.0 lb (17 kg). Internal RAID Unit: 40 lb (18 kg).
Construction:	Steel case and hardware.
Shipping Weight:	51.0 lb (23 kg). Internal RAID Unit: 54 lb (25 kg).

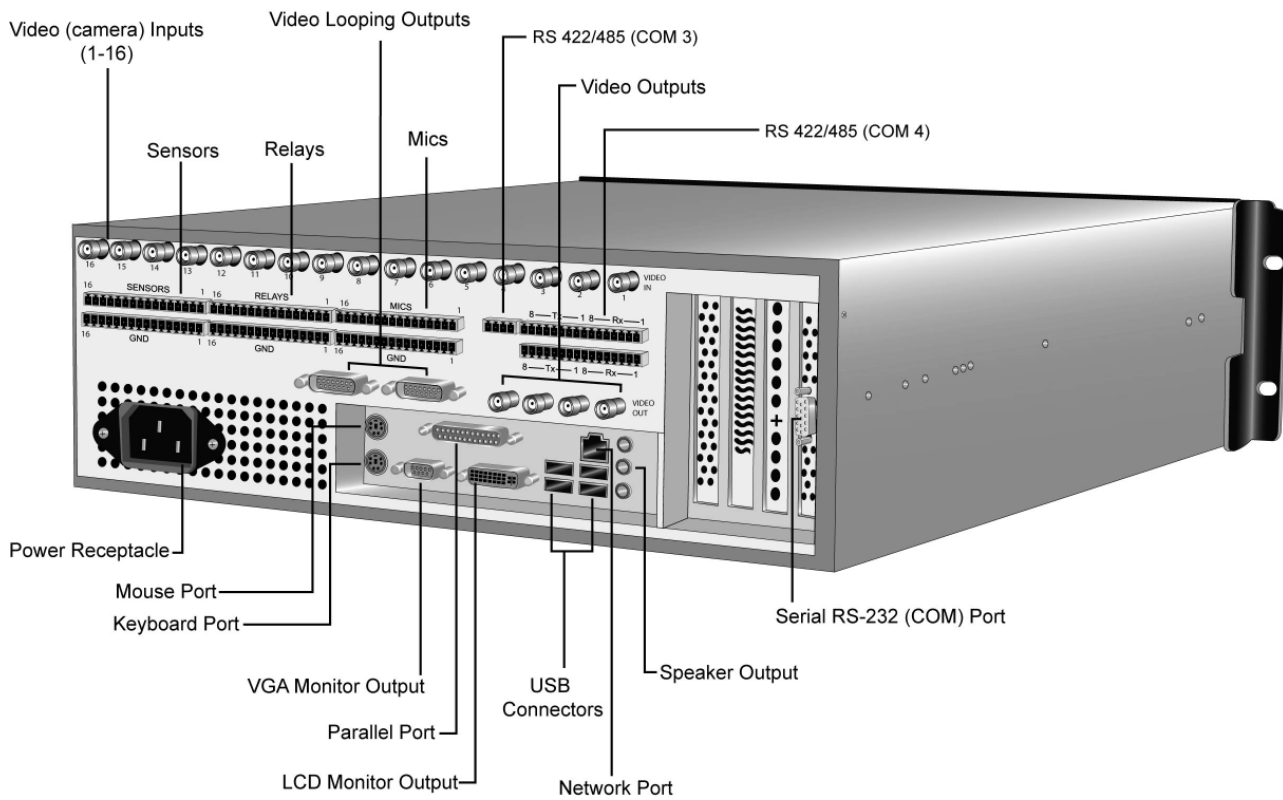
Environmental

Operating Temperature:	32° to 104°F (0° to 40°C).
Humidity:	Up to 95% relative, non-condensing.
Ideal Room Temperature:	66° to 75°F (19° to 25° C).
Ideal Room Humidity:	Up to 80% relative, non-condensing.
Maximum Room Temperature:	50° to 86°F (10° to 30° C).
Storage Temperature Range:	-4 to 158° F (-20 to 70° C) maximum.

Warranty

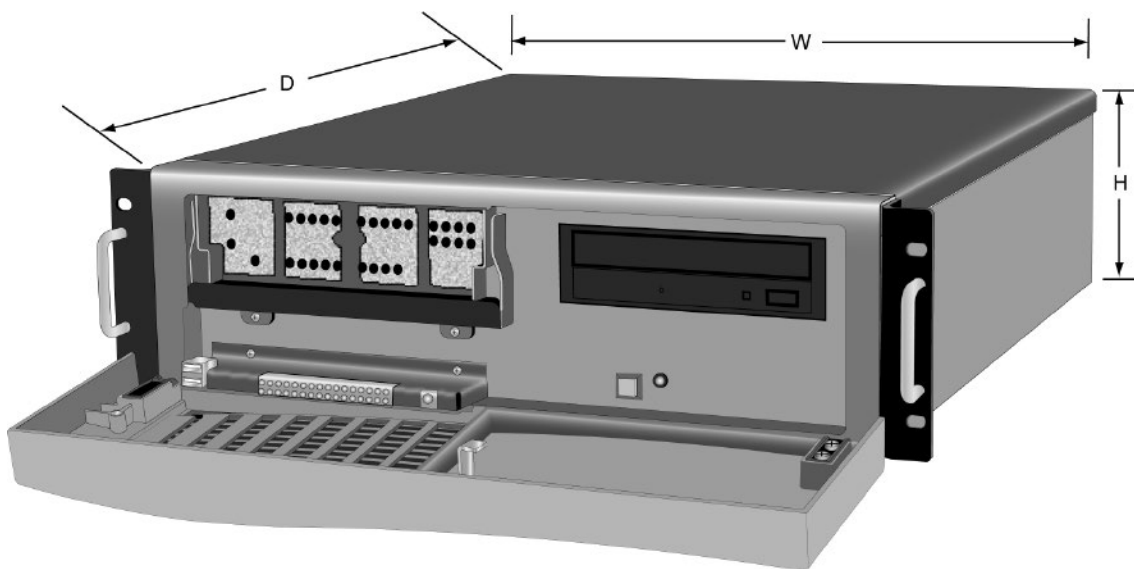
3 years parts and labor.

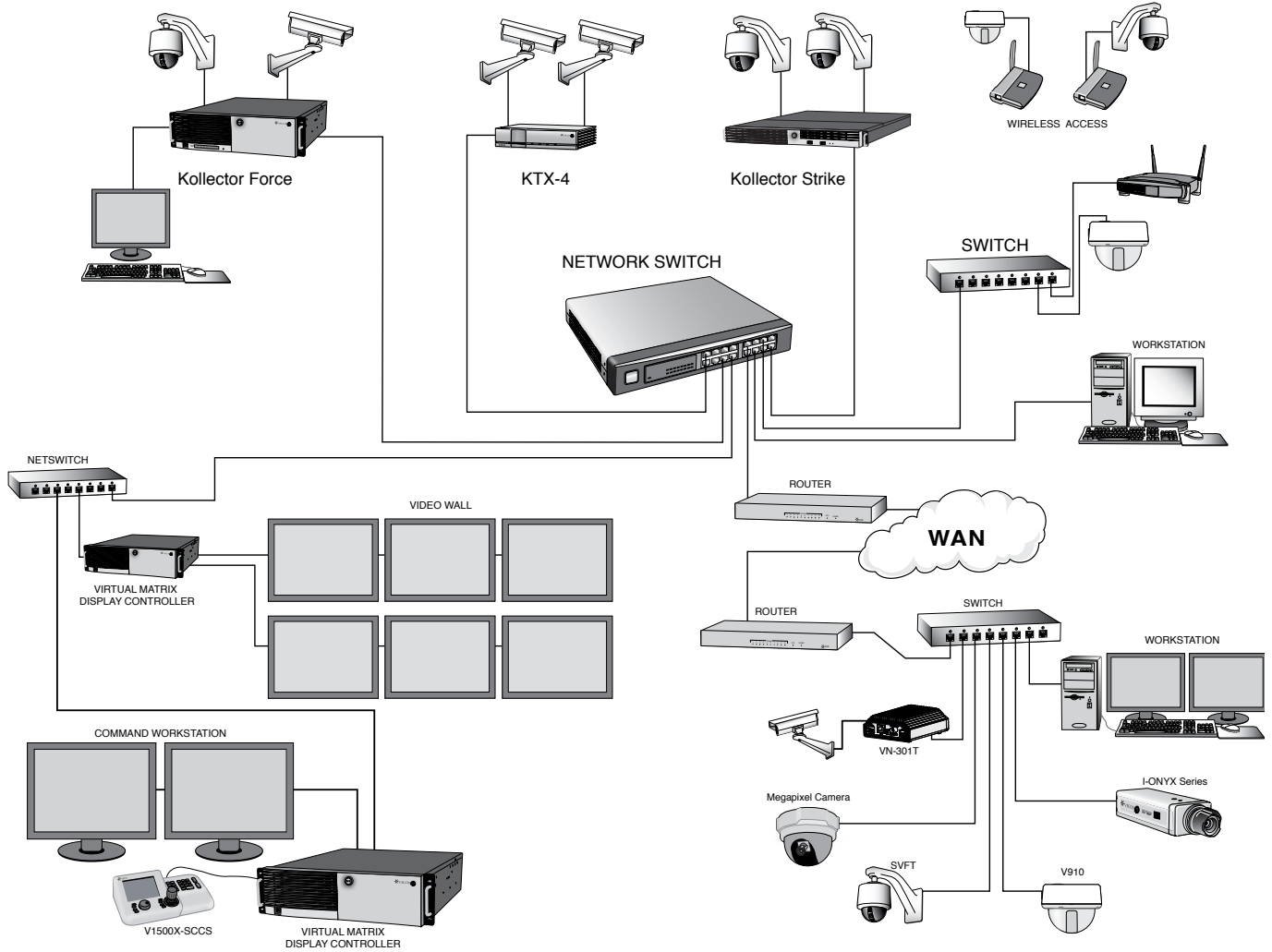
Vicon, Kollector, ViconNet and their logos are registered trademarks of Vicon Industries Inc. Microsoft and Windows are registered trademarks of Microsoft Corporation. Intel and Core are registered trademarks or trademarks of Intel Corporation. Copyright © 2013 Vicon Industries Inc. All rights reserved.



Kollector Force Rear Panel Connections

Dimensional Data





Typical ViconNet System Configuration with Kollector Force DVR






All models are 16-channel, hybrid DVRs preloaded with ViconNet Version 6 software with an internal DVD drive (not available on internal RAID-5 models) and 16-channel audio.

	fps at 4CIF	Model Number (See Notes)
Non-RAID	240 @ ViconNet MPEG-4/120 @ H.264; no internal hard drives for storage	KF2-SAN-V6
	240 @ ViconNet MPEG-4/120 @ H.264	KF2-(X)XXXV6
	480 @ ViconNet MPEG-4/240 @ H.264; no internal hard drives for storage	KF3-SAN-V6
	480 @ ViconNet MPEG-4/240 @ H.264	KF3-(X)XXXV6
Internal RAID	240 @ ViconNet MPEG-4/120 @ H.264	KF2-XXXXV6-R5
	480 @ ViconNet MPEG-4/240 @ H.264	KF3-XXXXV6-R5

Notes:

- (X)XXX indicates the hard drive size in GB. For example, a 480 fps Collector Force with removable hard drive and 1000 GB storage would have a model number of: KF3-1000V6. For Internal RAID units, 1000 GB (1 TB) is the smallest drive offered.
- An external storage option is available for non-RAID models. The "SAN" models are configured for use with external SAN-RAID storage.

Options and Accessories

	Description	Model Number
	Control Keypad. Small profile desk-top, provides multi-function control for camera stations with variable-speed joystick for pan-and-tilt control and push buttons for lens function.	V1410X-DVC
	Control Keypad. Desk-top version, provides multi-function control for camera stations with variable-speed joystick for pan-and-tilt control and push buttons for lens function.	V1411-DVC
	Control Keypad. Desk-top version, provides multi-function control for camera stations with three-function variable-speed joystick for pan-and-tilt control and push buttons for lens function.	V1411J-DVC
	Network Control Keypad. Used to control ViconNet digital video management systems, including Virtual Matrix Display Controller (VMDC) over an IP network or serial connection.	V1500X-SCCS-1
	External Storage Options. Vicon offers a variety of external storage options using SAN and other technologies. Refer to the web site for more information.	VN-SAN series