

# VERTEX

by RUGGED CCTV



4, 8 & 16 Channel DVRs

## OPERATION

- Embedded Stand-alone High Resolution DVR
- Amazing **Hexaplex** Operation (can perform 6 functions simultaneously) -
  1. Live Display
  2. Audio & Video Recording
  3. Playback of Archived Footage
  4. Search Archived Footage
  5. Network Monitoring
  6. Remote Setup of Schedules and Settings



Live Screen

## RECORDING

- 4, 8 and 16 Channels of **Real-Time** (up to 480 fps) MPEG-4 Video Recording
- 4, 8 and 16 Channels of **Real-Time** Audio Detection & Recording
- Highest Resolution Recording (up to 704 x 480)
- Court Admissible Watermark on each Video Frame
- Multiple Language Support – switch between 10 different languages

Storage Calculator

Channel	Recording Quality	Max Frame Rate (FPS)	Recording Resolution	Frame Rate (Frames/Sec)	Recording Hour/Day (Hours)
1	Very High	3000	CFP	30	24
2	Very High	3000	CFP	30	24
3	Very High	3000	CFP	30	24
4	Very High	3000	CFP	30	24
5	Very High	3000	CFP	30	24
6	Very High	3000	CFP	30	24
7	Very High	3000	CFP	30	24
8	Very High	3000	CFP	30	24
9	Very High	3000	CFP	30	24
10	Very High	3000	CFP	30	24
11	Very High	3000	CFP	30	24
12	Very High	3000	CFP	30	24
13	Very High	3000	CFP	30	24
14	Very High	3000	CFP	30	24
15	Very High	3000	CFP	30	24
16	Very High	3000	CFP	30	24

## MONITORING

- 2 Main Monitor Options, VGA or CCTV & Spot Monitor
- Remote Monitoring – with Web Browser, our (CMS) Remote Software or your PDA
- Control & Program multiple PTZ's through the DVR & Remote Software
- Auto E-Mail upon event
- Works with most Network Types and IP Configurations



Using PDA

## PROTECTION

- Multi-level Password Permissions

## PLAYBACK

- More Ways to Search than ever before:
  1. **Smart Search** – choose any part of a picture and ask the system to find all recordings with motion occurring in that part of the frame.
  2. **Search by Date & Time or any Event**
  3. **Multi-Time Camera Searches**
  4. **Multi-Day Camera Searches**
- Lightning Fast Playback** – up to 300x speed or all the way down to frame by frame mode

Playback Screen



## ARCHIVED FOOTAGE

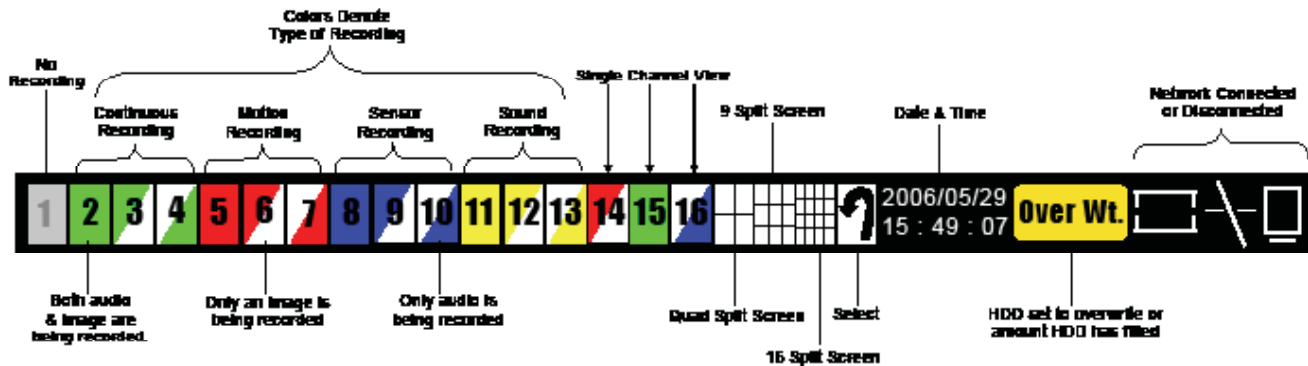
- Manages up to 3 Internal Hard Drives and Unlimited External Drives
- Manual or Automatic Archive back-up over the Network or Internet
- Multiple ways to Transfer archived footage:**
  1. Over the Network or Internet
  2. USB 2.0 Removable Media
  3. Firewire Port

**REAL TIME**  
video & audio DVRs!!

# On - Screen System Status Bar



Status bar on live screen

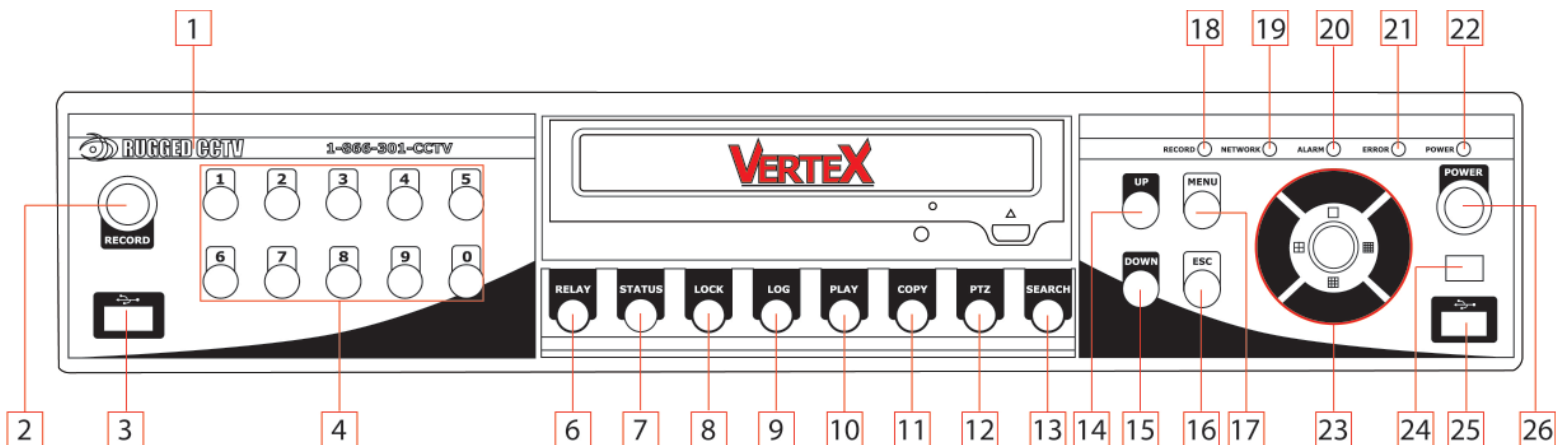


## Specifications

Video Input/Output	Camera Input - 4, 8 or 16 BNC
	Monitor Output - 1 BNC, 1 VGA
	Loop Output - 4, 8 or 16 BNC
	Spot Output - 1 BNC
Audio Input / Output	Line Input - 4, 8 or 16 RCA
	Line Output - 1 RCA
Recording Resolution	352 x 240, 704 x 240, 704 x 480 (NTSC), 352 x 288, 704 x 576 (PAL)
Recording Frame Rate	Vertex 1648 - Max 480fps - NTSC, Max 400fps - PAL
	Vertex 0824 - Max 240fps - NTSC, Max 200fps - PAL
	Vertex 0424 - Max 120fps @ cif & field, Max 30fps @ full- NTSC, Max 100fps - PAL
Compression	Video - Standard MPEG4, Audio - G.726
Display Mode	Live - 1 / 4 / 6 / 8 / 9 / 10 / 13 / 16 / Sequence, Playback - 1 / 4 / 9 / 16
Control Input / Output	Sensor Input - 16, Relay Output - 4
System Control	Front Panel, Remote Control, Mouse, Network
HDD Bay	3HDD, (Max 1.5TB)
Backup / Copy Interface	Ethernet, IEEE1394, USB 2.0
Network Interface	PSTN / ISDN / LAN (Ethernet) / Cable Modem / ADSL / Dynamic - IP / Private - IP / DDNS / Multi - Network Interface (Ethernet & PSTN)
PTZ / ATM / POS Interface	RS485, RS422, RS232C
Software Upgrade	RS232C (Serial), Ethernet, USB Memory Stick
Specific Features	Audio Detection / Auto E-mailing / Dual Monitor (Simultaneous Live / Playback Display)
Remote Access	Remote Access Software / Web Monitoring
Power	110V / 220V, 50Hz / 60Hz
Operating Temperature	-10°C - 50°C
Weight/Dimensions	11.75lb / 17"(w) x 3.5"(h) x 11.25" (d)



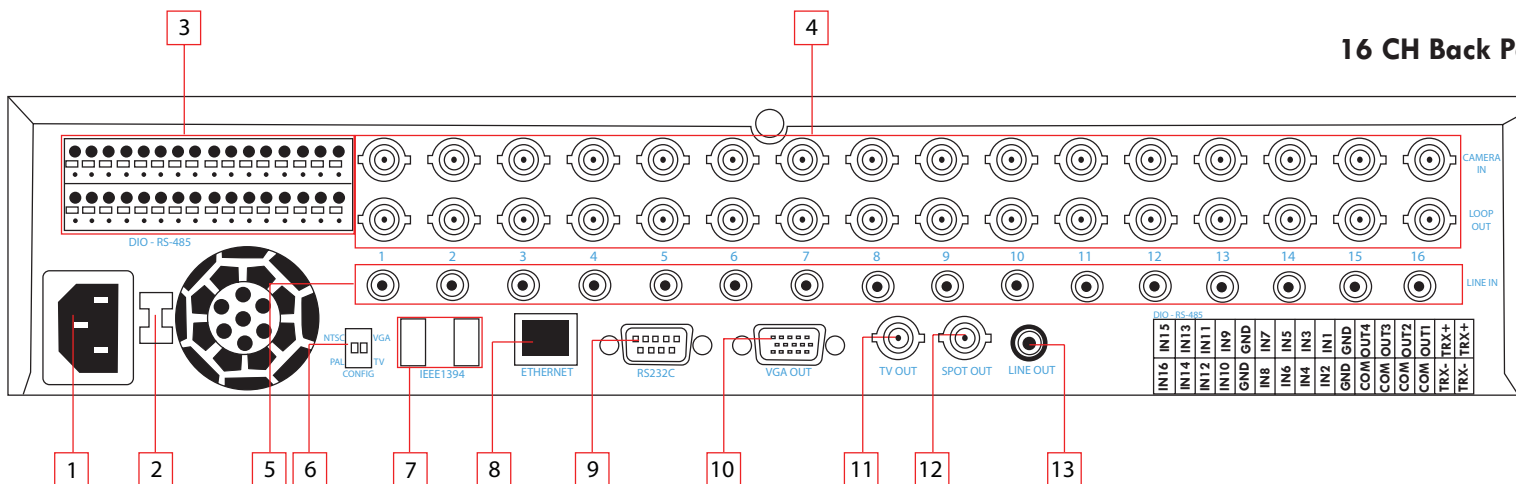
## Front Panel



## Front Panel Legend

No.	Name	Function
1	LABEL	Brand Name
2	RECORD	All channel Record/Stop
3	USB	Connection ports for a USB mouse and memory stick
4	Number	System login and turn ON in other number input mode
5	ODD	CD-RW and DVD-RW
6	Reverse Play / Fast Reverse RELAY	Backward Playback/Rewind (in Playback mode) Relay Control (in Monitoring mode)
7	Reverse Frame by Frame or TAB STATUS	Backward Playback Frame by Frame (in Playback mode) View System Configuration/Change Display Configuration (in Monitoring mode)
8	PAUSE / LOCK	Pause (in Playback mode) / Lock (in Monitoring mode)
9	Forward Frame by Frame or TAB LOG	Playback Frame by Frame (in Playback mode) View System Log (in Monitoring mode)
10	Forward Play / Fast Forward PLAY	Playback/Fast Forward (in Playback mode) Play back (in Monitoring mode)
11	COPY	Play back Recorded Video
12	PTZ	Change Pan Tilt Zoom Mode
13	SEARCH	Search Recorded Images
14/15	UP/DOWN	Speed and Volume Up/Down
16	ESC Button	Exits the current menu or selects the upper menu
17	MENU	Various Modes
18	Record LED	Green LED turned on upon HDD operation
19	Network LED	Green LED turned ON during remote access
20	Alarm LED	Red LED turned on upon the occurrence of event or motion
21	Error LED	Red LED turned on upon fan defect or recording interruption
22	Power LED	Power On/Off
23	Move & Display	Moves from one category to another or changes the display mode
24	IR Sensor	Remote controller input part
25	USB Port	Connection port for a USB mouse and USB memory stick
26	Power Button	Turn the system power ON or OFF

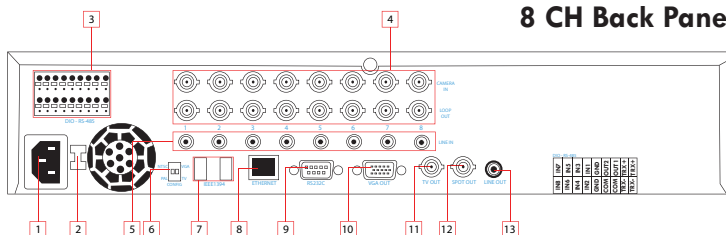
## 16 CH Back Panel



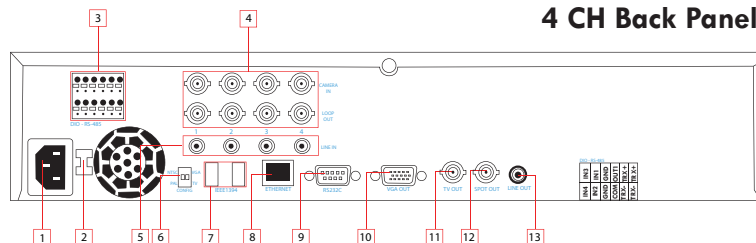
### Back Panel Legend

No.	Name	Function	Type
1	AC IN	Power cable connection to the body	
2	AC Selector	110V, 220V voltage selection (not available for the Free Voltage case)	
3	RS485 DIO	Connection for a PTZ camera control cable Sensor/Relay extension board connection	Terminal Block
4	CAMERA IN LOOP OUT	Connection for the video camera Connection for the video signal loop-back output	BNC BNC
5	AUDIO IN	Audio input connection	RCA
6	NTSC/PAL VGA/TV	Used to select the video input format Used to select the video output format	DA-2
7	iEEE1394	External backup device connection	1394 Port
8	Ethernet	ADSL, cable modem, and Ethernet 10/100 Base-T connection	RJ-45
9	RS-232C	Serial cable connection for system upgrades & checking	D-SUB 9P
10	VGA	Connection for the VGA monitor	D-SUB 15P
11	TV	Connection for the CCTV monitor(divided screen)	BNC
12	SPOT	CCTV monitor connection to output image from the channel generating an event signal (full screen)	BNC
13	AUDIO OUT	Audio output connection (Line Only output)	RCA

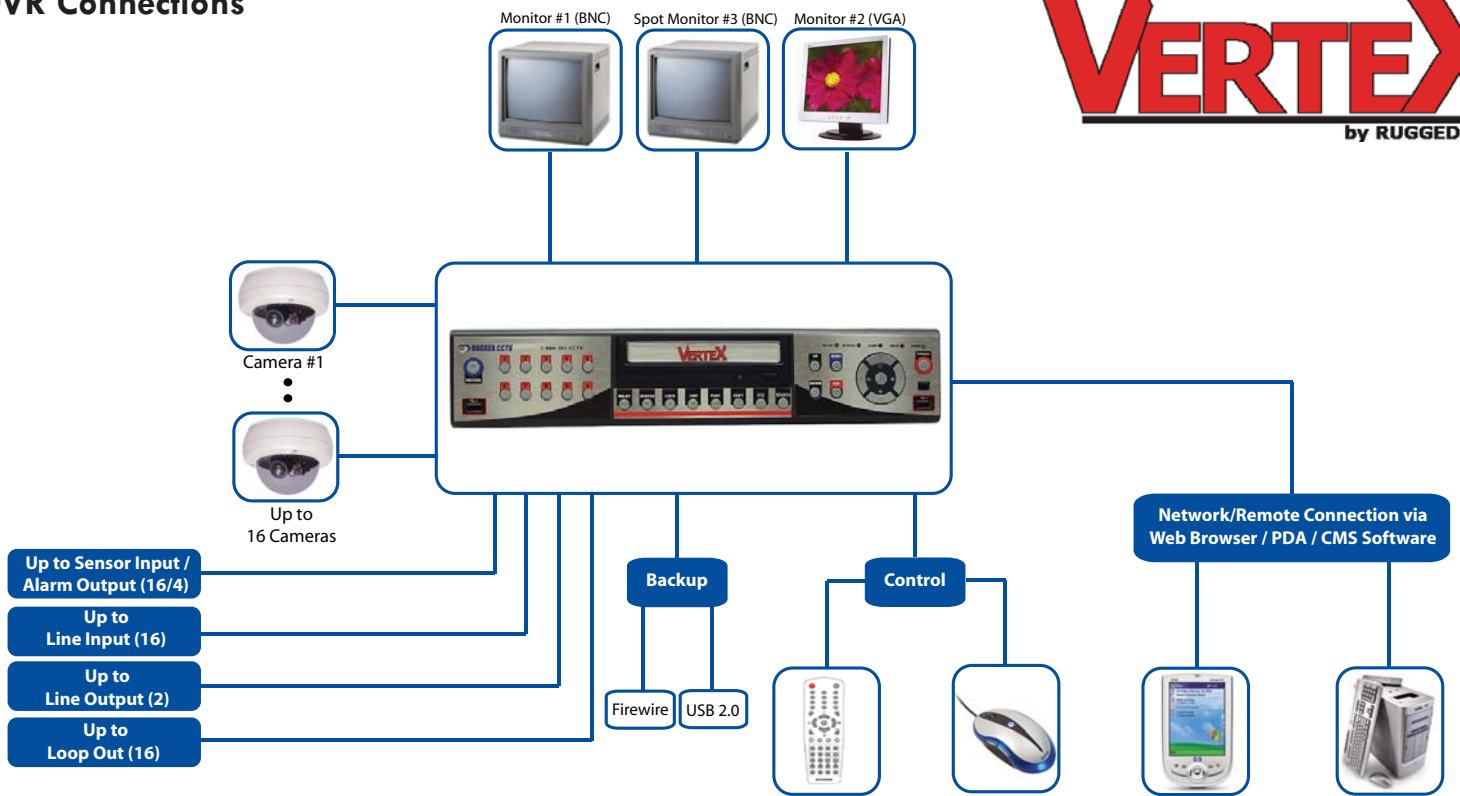
### 8 CH Back Panel



### 4 CH Back Panel



## DVR Connections



## DVR Components



201 North Elm Street • Kemp, Texas 75143  
 Toll Free: 1-866-301-CCTV • Phone: 903-498-3240 • Fax: 903-498-8989  
 Website: [www.rugged-cctv.com](http://www.rugged-cctv.com) • email: [sales@rugged-cctv.com](mailto:sales@rugged-cctv.com)