



PRODUCT SPECIFICATIONS

DIGITAL VIDEO RECORDER

MPEG-2 STANDALONE MULTI-CHANNEL



MODEL M-DVR4



CAPABILITIES & FEATURES

GENERAL

- Jog/Shuttle Control
- OSD Menu
- In/Out Video Looping
- Adjustable video motion detection
- Buzzer sound
- Keyboard lock
- Password protection
- Real-time clock with battery backup

DISPLAYING

- Quad display/full screen playback of any channel
- Channel auto-switch
- Camera titles
- On-screen date/time
- HDD usage statistics

RECORDING

- Manual recording
- Schedule recording
- Triggered recording by alarm sensor
- Auto-recording duration
- Data overwrite mode (On/Off)
- Adjustable resolution
- Adjustable quality
- Adjustable frame-rate
- Audio recording

PLAYBACK

- Still/Pause
- Fast forward play, 6 levels
- Fast backward play, 6 levels
- Forward frame advance
- Search by alarm event
- Search by time and date



Specifications subject to change without notice

SPECIFICATIONS

VIDEO INPUTS	4 BNC (1.0Vp-p, 75Ω) and 1 S-Video
VIDEO OUTPUTS	4 BNC (1.0Vp-p, 75Ω) Loopout
	1 RCA (1.0Vp-p, 75Ω) Live or
	1 RCA (1.0Vp-p, 75Ω) Composite out
	1 S-Video
VIDEO STANDARDS	NTSC and PAL
COMPRESSION TYPE	MPEG-2
QUALITY	2.5, 3, 3.5 or 4 Mbps
RESOLUTION	352 x 480 or 704 x 480 (NTSC)
	352 x 576 or 704 x 576 (PAL)
FRAME RATE	30 fps - 1/30 fps in 12 steps (NTSC)
	25 fps - 1/30 fps in 12 steps (PAL)
FAST PLAYBACK FACTOR	1, 2, 4, 8, 16, 32x
AUDIO INPUTS	Left/Right line RCA (47KΩ unbalanced)
AUDIO OUTPUTS	Left/Right line RCA (600Ω unbalanced)
ALARM INPUTS	4 (TTL level signal to terminal block)
HDD	40 GB removable IDE
INPUT VOLTAGE	100 VAC - 230 VAC, 50/60 Hz
POWER CONSUMPTION	Approximately 50W
DIMENSIONS (WxHxD)	16.5" x 3.5" x 15.5"
	420 mm x 88 mm x 390 mm
WEIGHT	10.8 lbs. (Approximately 5 kg)
OPERATING TEMPERATURE	41°F to 104°F (5°C to 40°C)
OPERATING HUMIDITY	Up to 80% relative, noncondensing

M-DVR4 HARD DISK CONSUMPTION RATES



The **VELTEK** M-DVR4 comes with a removable 40 gigabyte hard disk drive. The following chart illustrates the hard disk use rate based on the 40 GB HD and 10-15% HD noise, storage space estimation for NTSC video at 3 Mbps. Please note that this is a 4 channel single video stream.

This table shows hard drive use by Hour, 10-15% HD Noise, 4 channel single video stream.

	1 HOUR
30 FPS	0.64 GB
15 FPS	0.32 GB
10 FPS	0.21 GB
5 FPS	0.11 GB
4 FPS	.08 GB
3 FPS	.06 GB
2 FPS	.04 GB
1 FPS	.02 GB

The popularity of the **M-DVR4** is attributed to the following:

- » Removable HDD (hard disk drive) for data portability between locations
- » Easy to upgrade HDD
- » HDD lifetime that goes on for years, eliminating deteriorating video quality on recycled tapes
- » Easy to rotate with extra mobile HDDs for continuous and longer recording
- » Flexible interval, schedule and alarm (pre- and post-) recordings
- » Speed video search and review
- » Record-mode auto recovery function, eliminating worries over power blackouts (Also applicable to the intentional unplugging of power)
- » Operation buttons lock to prevent unauthorized operation
- » Standalone unit with VCR-like operating buttons, eliminating the need for special training and minimizing installer's time to train end-users before and after sales
- » Ideal for small businesses (i.e. liquor stores, restaurants, gas stations, jewelry stores, small offices) who want an inexpensive solution without having to use a LAN

	HOURS	DAYS	WEEKS
30 FPS	25.8	1.1	
15 FPS	51.6	2.1	
10 FPS	77.4	3.2	
5 FPS	154.8	6.4	
4 FPS	193.5	8.0	1.1
3 FPS	258.0	10.7	1.5
2 FPS	387.0	16.1	2.3
1 FPS	774.0	32.2	4.6

An additional **optional** removable 100 gigabyte hard disk can be purchased for the M-DVR4. The following chart illustrates the hard disk use rate based on the 100 GB HD and 10-15% HD noise, storage space estimation for NTSC video at 3 Mbps. Please note that this is a 4 channel single video stream.

	HOURS	DAYS	WEEKS
30 FPS	64.5	2.7	
15 FPS	129.0	5.4	
10 FPS	193.5	8.0	1.1
5 FPS	387.0	16.1	2.3
4 FPS	483.7	20.0	2.8
3 FPS	645.0	26.8	3.8
2 FPS	967.5	40.0	5.7
1 FPS	1935.0	80.6	11.4

M-DVR4 COMPARISON WITH TIME-LAPSE VCRs



M-DVR4

The technical specifications that define **VELTEK's** innovative M-DVR4, the first digital video recorder in the CCTV market with MPEG-2 compression, underscore how ideal this 4 channel standalone unit is for small businesses who need an inexpensive solution without having to use a LAN. The VCR-like jog shuttle capability on the M-DVR4 eliminates the need for special training and minimizes the installer's time to train end users before and after sales. The M-DVR4 is the perfect product to introduce to those analog customers looking for a smooth transition to the convenience and effectiveness of digital technology.

	M-DVR4	TIME-LAPSE VCRs
RESOLUTION	over 700 TVL	200-240 TVL (SVHS: 400 TVL)
TYPICAL RECORDING MODES	12	12
MOTION DETECTION	YES - built-in	NO
SCHEDULER	YES	Most
PASSWORD PROTECTION	YES	Some
ALARM INPUTS	YES	Most
JOG/SHUTTLE	YES	Some
RECORDING MEDIA	IDE HDD	VHS 1/2" Tape
EVENT LOG	YES	Some
PROGRAMMABLE RELAYS	YES	NO
DIRECT "GO TO" SEARCH	YES	NO
RECORDING TIME @ 30 FPS	24 Hours (40 GB HDD)	2 hours
S-VIDEO	YES	Some
FPS AT 72 HOUR RECORDING	10 FPS (40 GB HDD)	0.9 FPS (T120)
REMOVABLE MEDIA	YES	YES
MEDIA LIFE	Greater than 10,000 uses	Typically less than 30 uses
ADDITIONAL EQUIPMENT REQUIREMENTS	NO	YES
CLEANING AND MAINTENANCE	NO	MONTHLY