EAZEO
Your guide
to observation

Security Systems

Security you can rely on.

BOSCH

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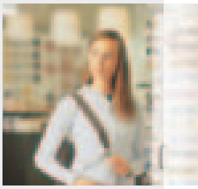
The Eazeo added value

Eazeo is the latest generation of the successful Bosch Observation Systems for small and medium-sized businesses. It is driven by:



Innovation
Bosch's experience in advanced chip technology ensures the Eazeo observation system meets your observation and security application needs.

Easy to install and operate
The Eazeo observation system is quick and easy to install. Its intuitive user interface ensures hassle-free installation and operation.

Integrated functionality
The Eazeo observation system is an all-in-one solution for monitoring and security applications. It's easily expandable with accessories for intercom and remote door opening.

Service and reliability
The Eazeo observation system is backed by a three-year warranty* and SWAP program*. A helpdesk is available for assistance before or after purchase.

*For more information please contact your sales representative.

An introduction to Eazeo

Reduce in-store crime

Closed-circuit television (CCTV) observation is an essential part of security systems. In small and medium-sized applications, such as shops, jewelers and small businesses, the presence of cameras is an excellent deterrent and a means of reducing in-store crime and other causes of stock shrinkage. Every day, retailers lose turnover through shoplifting, under-ringing and cash shrinkage from ‘open drawers’ and voids. Merchandise shrinkage through employee, vendor or supplier theft compounds the problem. Lost productivity is another unnecessary expense! The Eazeo observation system is the ideal solution.

Time-saving installation and operation

Eazeo’s simple installation requires no specialized CCTV knowledge, equipment or tools. This reduces installation time to an absolute minimum (allowing you to carry out ‘business as normal’) and virtually eliminates training requirements for your personnel. The intuitive, menu-driven user interface simplifies operation.

‘All-in-one’ integrated observation solutions

Eazeo systems are available as sets covering the basic requirements for an observation system. Extra cameras and accessories are ordered separately to expand the system. All system cabling and connectors are included, so it really is a ‘one-box’ solution with guaranteed compatibility.

You choose what you need

The complete Eazeo range of observation systems, including economic black & white as well as advanced color systems, provides ‘one-box’ solutions for smaller businesses. The wide range of accessories, for example intercom and remote door opening, make it possible to install integrated security systems with exactly the functionality you need. These accessories and the wide range of cameras can easily be added as required. Eazeo grows as your business grows.

Service from a reliable partner

Bosch is a major player in security and observation systems, so you can be confident that Eazeo is made to the highest quality standards. The three-year warranty* and SWAP* program ensure that if problems do occur, a solution is quickly found.

* For more information, please contact your sales representative.

Four-input switcher system

VSS7390 / VS7390 series

- Color for better recognition and identification
- Full-screen observation with up to 4 cameras
- Picture in picture for viewing second camera
- Intuitive user interface for hassle-free installation and operation

Color is the natural way to look at things. So observation in full color enhances recognition and identification of subjects. The Eazeo observation systems start with the four-input switcher.

Four-input switcher

The Eazeo switcher has inputs for up to four cameras. The monitor displays sequential full-screen images and any camera image can be manually selected. A picture in picture feature allows a second camera to be simultaneously viewed. It also features alarm handling for which dedicated accessories are available. Alarms triggered by external sensors or built-in video motion detection will automatically pop up the relevant camera. An optional remote control unit is available to operate the switcher. A system based on the switcher is expandable to include intercom facilities with remote door opening.

Switcher system capabilities

Display

- Full-screen display
- Sequence through cameras with adjustable dwell time
- Picture in picture – displays a small camera picture within the full-screen
- Zoom – displays digital x2 zoom on full-screen image
- Presentation mode – shows videos via monitor screen
- Playback detection – automatically displays the recorder image during playback

Alarm handling

- Day/night – provides two different alarm handling profiles
- Video motion detection – triggers alarm if movement is detected in a defined zone
- History list – logs all alarm-triggering events

Intercom and remote door opening

- Talk – enables two-way voice contact for intercom applications
- Action – activates an external device such as remote door opening

Installation/operation

- On-screen menus – simplifies operation and configuration
- Installation wizard – provides step-by-step on-screen instructions
- Automatic cable length compensation
- Accessories are simply inserted ‘in-line’ with the cameras
- Optional remote control

Contents of sets

The switcher is integrated into a high-quality 14" color monitor and comes with one camera. A 15 m (45 ft) system cable fitted with system connectors (RJ11) is supplied.

Eight-input multiplexer system

VSS8394 / VS8394 series

- Integrated full-duplex eight camera multiplexer
- Multi-screen viewing with simultaneous full-screen recording of all cameras
- Real-time quad mode
- Motion detection with event replay
- Intuitive user interface for hassle-free installation and operation
- Optimized for recording applications

In addition to handling up to eight cameras, the Eazeo multiplexer includes extra built-in functions to make it possible to build a more extensive security system.

Eight-camera multiplexer

The Eazeo multiplexer has inputs for up to eight cameras.

The monitor displays images in various screen formats, including full-screen (automatically or manually sequenced), four cameras in real-time quad (2x2 matrix) and eight cameras in a 3x3 matrix.

All eight images can be recorded in full-screen format using a video recorder.

The multiplexer also accommodates intercom facilities and remote door opening (with snapshot feature for viewing visitors) plus alarm handling for which dedicated accessories are available. Alarms triggered by external sensors or the built-in video motion detection will automatically pop up the relevant camera. On an alarm, the event replay will display crucial seconds of pre- and post-alarm images.

Advanced alarm handling

The video motion detection can be configured to activate an alarm and display the relevant camera image when unexpected movement occurs in a pre-defined zone on the image. External alarms, triggered by IR sensors or switches on doors, cabinets and windows for example, can also activate a particular camera image. The event replay feature allows the 4 seconds prior to an alarm and 6 seconds after an alarm is triggered to be reviewed later.

Multiplexer system capabilities

Display

As for switcher but also including:
- Real-time quad (2x2 matrix) display
- 3x3 matrix display
- Possibility to record all eight cameras in full-screen even when viewed in multi-screen mode

Alarm handling

As for switcher but also including:
- Event-replay – displays pre- and post-alarm images

Intercom and remote door opening

As for switcher but also including:
- Doorbell ‘snapshot’ images of callers

Contents of sets

The multiplexer is integrated into a high-quality 14" color monitor and comes with one or four cameras. A 15 m (45 ft) long system cable fitted with system connectors (RJ11) is supplied.

Digital color and black & white cameras for EAZEO color observation systems

VCM7xxxx/00T • VC7xxxx5T series

- Digital color and black & white cameras with superb picture quality
- Automatic cable length compensation
- Video motion detection
- Adjustable field of view
- Backlight compensation
- Wide range of camera lens and housing combinations

The Eazeo color cameras use high-sensitivity ‘charge-coupled device’ (CCD) sensors to ensure you get excellent picture quality even under difficult lighting conditions.

The innovative cameras deliver superb picture quality thanks to advanced digital signal processing for excellent light sensitivity and enhanced color, sharpness and contrast. They are the perfect solution for optimizing identification and recognition in security monitoring. For indoor applications there is a choice of cameras with integrated lens, integrated varifocal lens and mini-dome. For outdoor use or aiming at a doorway where light levels may fluctuate, cameras with CS-mount and varifocal DC-iris lenses are available. Varifocal lenses allow the field of view to be adjusted on-site. These cameras (excluding the covert versions) also feature functions like video motion detection (with selectable area and sensitivity) and adjustable field of view. They have automatic backlight and cable length compensation. Connections are made using the system cables (supplied). For low-light environments, a black & white camera specifically designed for Eazeo can be the solution.

Color camera (VCM7C130/00T / VC7C1305T)

- Compact digital camera with integrated 3 mm lens
- Mounting bracket and built-in microphone
- Suitable for most indoor applications

Color camera with varifocal lens (VCM7C230/00T / VC7C2305T)

- Compact digital camera with integrated 3-6 mm manual varifocal lens
- Focal length can be set for optimum scene coverage
- Mounting bracket and built-in microphone

CS-mount color camera with varifocal lens (VCM7C272/00T / VC7C2725T and VCM7C275/00T / VC7C2755T)

- Compact digital camera with CS-mount (for detachable lenses)
- Supplied with 2.8-10 mm DC-iris varifocal lens (VCM7C272/00T / VC7C2725T) or 5-50 mm DC-iris varifocal lens (VCM7C275/00T / VC7C2755T)
- Focal length can be set for optimum scene coverage
- DC-iris lens compensates for changing light levels
- Suitable for outdoor applications
- Mounting bracket and built-in microphone

CS-mount black & white camera with varifocal lens (VCM7B272/00T / VC7B2725T)

- Black & white version of VCM7C272 with 3.5-8 mm DC iris varifocal lens
- High sensitivity and high resolution for low-light situations

Mini-dome camera (VCM7D130/00T / VC7D1305T)

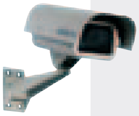
- Unobtrusive Mini-dome with integrated 3 mm lens
- Provides 120° horizontal, 120° vertical and 360° rotational adjustment
- Suitable for wall or ceiling mounting

Covert cameras (VCM9736/10T / VC973650T and VCM9736/11T / VC973651T)

- Camera disguised as PIR and smoke detectors
- Fitted with integrated pinhole lens (PIR) and 3.8 mm (smoke) lenses
- Suitable for discreet observation
- Discourages camera dodging or tampering

Color camera in outdoor housing (VCM7H272/00T / VC7H2725T)

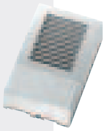
- Outdoor housing VCM1353/00T + camera VCM7C272/00T /VC7C2725T + 25 m (75 ft) TP cable
- Factory pre-installed and adjusted



Color accessories

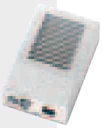
Eazeo outdoor video intercom (VSS7915/00T / VS79155T)

- Color camera and two-way voice communication
- Doorbell button with microphone activation and backlit nameplate
- Additional separate alarm/action box to control external devices
- Surface- or flush-mounting
- Weatherproof, vandal-resistant, dust- and water-resistant (IP54)
- Simple, single-cable (twisted-pair) connection



Action/alarm box (VSS7902/00T / VS79025T)

- For interfacing external alarm sensors to the Eazeo system monitor
- For controlling external units (such as remote door lock) from the system monitor

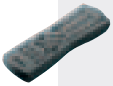


Interface box (VSS7903/00T / VS79035T)

- For interfacing an optional VCR or TV receiver

Dummy camera (VCM1120/00T)

- Increases deterrent factor



Remote control (RC283511/01)

- For remote control of system and slave monitor

Slave monitor (VSS9490/90 / VS9490/91T)

- Up to two slave monitors can be connected to the system
- Slave monitors automatically follow the system monitor
- Suitable for confrontation monitors, extra surveillance and showing video promotions or advertisements
- Offers talk and action control

Audio/video cable

- Extra A/V cable (1 m/3 ft) for aux. output audio/video (VSS7911/00T)
- 10 m (30 ft) extension cable for the A/V cable (VSS7912/00T)

EAZEO Digital Video Recorder

DVR1B1161

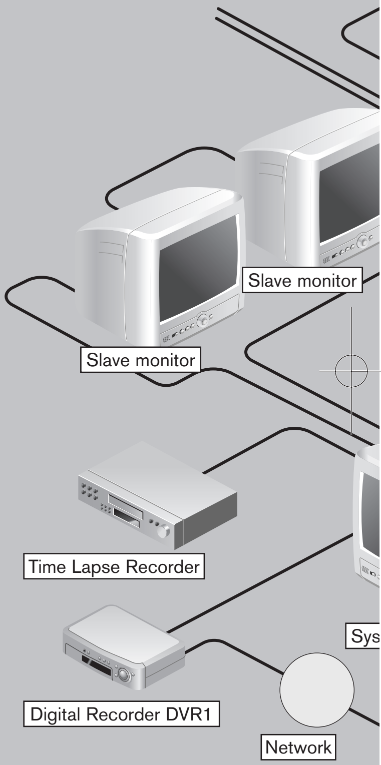
- Superior image and audio quality through digital recording
- Quick search by date/time, alarm events and recording list
- Easy Jog/Shuttle playback control
- Export pictures and clips to Compact Flash cards
- Uninterrupted recording for one week or longer
- Remotely view recordings and live pictures with web-based browser

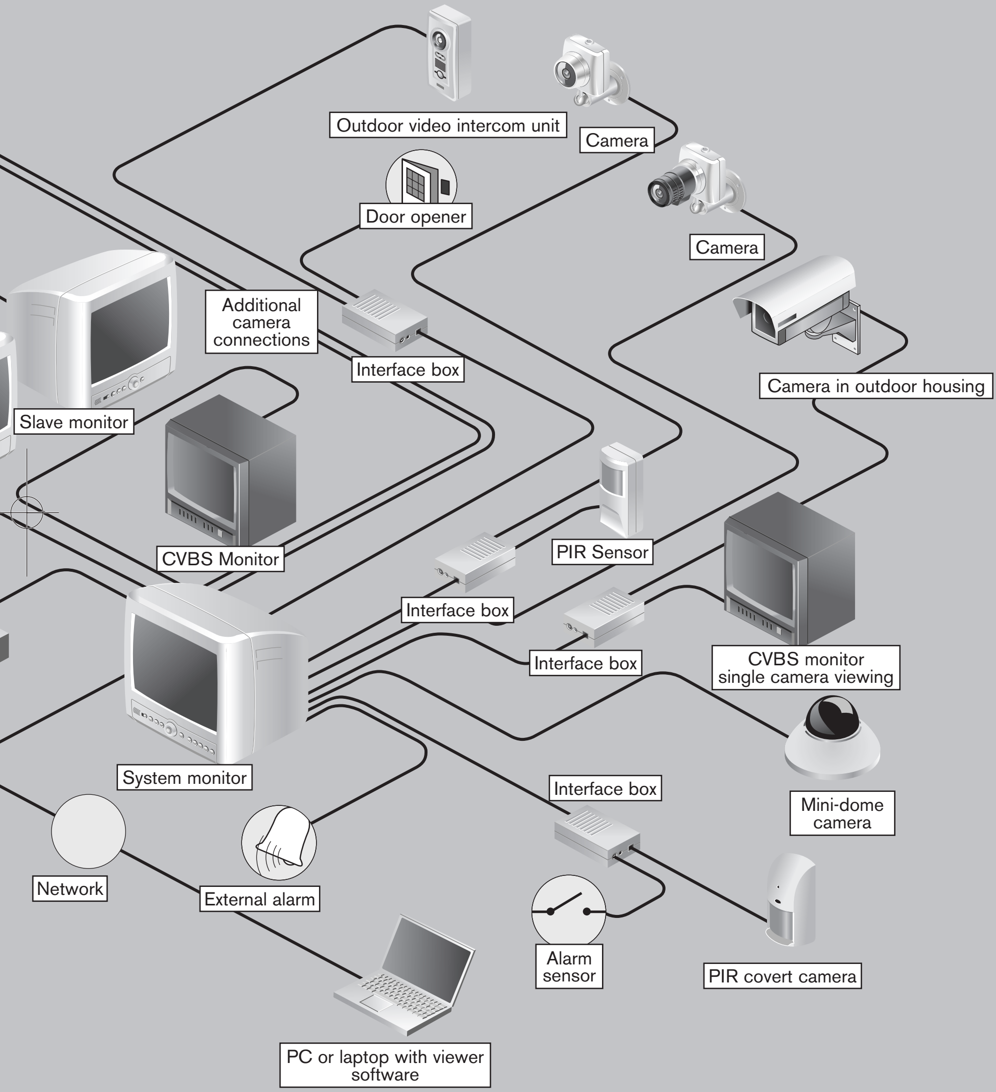
The Eazeo Digital Video Recorder brings advanced recording and playback technology to the Eazeo color observation system. The DVR allows uninterrupted recording in either continuous or time-lapse modes for as long as a week or more. There are no video tapes to change and store, and frequent, costly VCR maintenance is eliminated.

Digital technology allows any desired events to be retrieved and viewed virtually instantly, with a choice of easy-to-use search methods. Pictures and clips can be exported to Compact Flash media using the built-in card slot, allowing convenient storage and viewing on a PC.

Color configuration example

Eazeo Color Observation System


Slave monitor
Slave monitor
Time Lapse Recorder
Sys
Digital Recorder DVR1
Network


Outdoor video intercom unit
Camera
Door opener
Camera
Additional camera connections
Interface box
Camera in outdoor housing
Slave monitor
CVBS Monitor
PIR Sensor
Interface box
Interface box
CVBS monitor single camera viewing
System monitor
Interface box
Mini-dome camera
Network
External alarm
Alarm sensor
PIR covert camera
PC or laptop with viewer software

Black & white observation systems

VSS2360 / VS23605T
VSS2364 / VS23645T

- Rugged 12" system monitor (11" viewable)
- Four camera inputs
- Switcher or quad (2x2, real-time)
- Intercom, action and alarm options
- Easy installation

Switcher

The black & white switcher provides a basic observation solution with up to four cameras. Camera images can be manually selected using front panel controls, or are displayed automatically in sequence via the built-in switcher. The system provides both visual and audio contact via built-in microphones in the cameras (except covert cameras).

Quad

Next to the functions from the switcher, the quad provides the possibility to observe (and record) all four cameras at the same time in a 2x2 matrix display mode. This makes it a cost-effective solution to keep a constant eye on small to medium-sized premises. The quad also provides event replay, digital storage and display of pre- and post alarm images.

Black & white cameras (VCM8637/00T / VC86775T and VCM8638/00T / VC86785T)

- Compact cameras with integrated 4 mm or 8 mm lens
- Mounting bracket and built-in microphone
- Suitable for most indoor applications

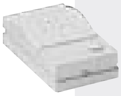
Contents of sets

The switcher and quad are integrated into a high-quality 12" black & white monitor and come with one or four cameras. A 25 m (75 ft) system cable fitted with system connectors (RJ11) is supplied.

Black & white accessories

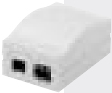
Intercom box (VSS2901/00)

- Features doorbell and two-way intercom
- Allows voice communication with operator at the monitor
- Suitable for integrated access management



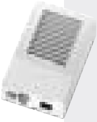
Alarm box (VSS2902/00)

- For interfacing external alarm sensors to the system monitor



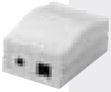
Interface box (VSS2903/19T / VS29039T)

- For interfacing an optional VCR or TV receiver



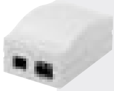
Cable extension box (VSS2904/00 / VSS2904/05)

- Increases distance between camera and monitor to up to 600 m



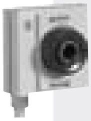
Action box (VSS2905/00)

- For controlling external units (such as remote door lock) from the system monitor



Dummy camera (VCM1110/00T)

- Increases deterrent factor



Slave monitor (VSS4460/00T / VS44605T)

- Up to four slave monitors can be connected to the system
- Slave monitors automatically follow the system monitor

General accessories

Camera housing (VCM1152/10T)

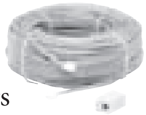
- Extra protection for indoor mounted cameras
- Dimensions (WxHxD) and weight -
  Housing: 110 x 105 x 150 mm; 0.25 kg

Outdoor housing (VCM1353/00T)

- Extra protection for outdoor cameras
- Low voltage powered from Eazeo monitor
- Single cable for heater and camera
- Waterproof to IP55
- Adjustable sunshield
- Dimensions (WxHxD) and weight -
  Housing: 152 x 112 x 290 mm; 1.5 kg
  Wall mount: 73 x 114 x 238 mm; 0.5 kg
- Temperature range from -20°C to 50°C (-4°F to 122°F)

Installer kit (VSS2930/00)

- 300 m (900 ft) system cable
- 25 RJ11 system connectors

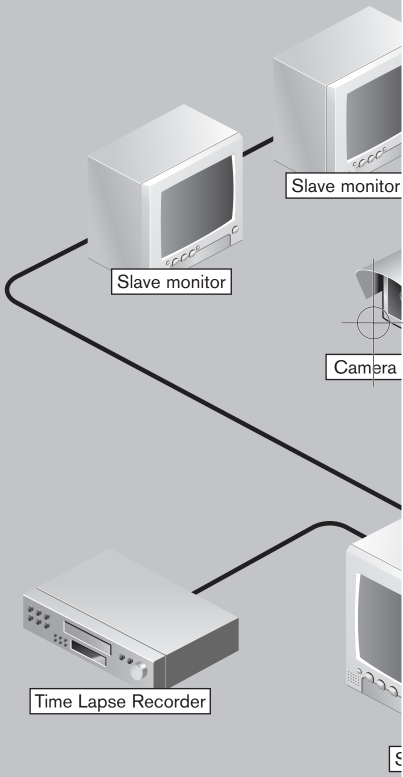


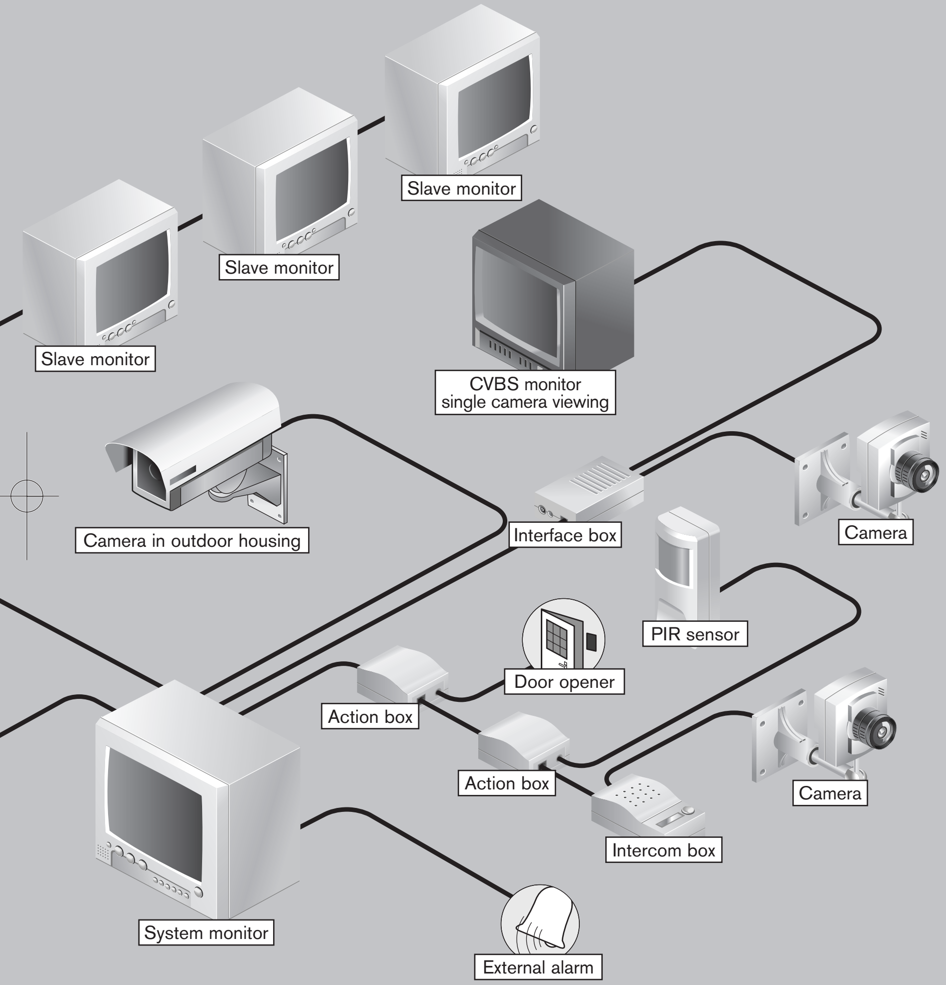
Extension cable (VSS2906/00)

- 50 m (150 ft) system cable with RJ11 system connectors

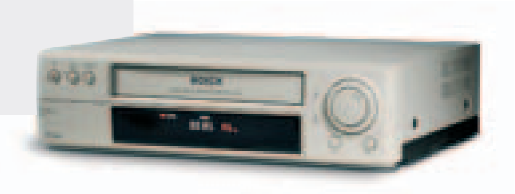
Black & white configuration example

Black & white Observation System


Slave monitor
Slave monitor
Camera
Time Lapse Recorder


Slave monitor
Slave monitor
Slave monitor
CVBS monitor
single camera viewing
Camera in outdoor housing
Interface box
Camera
PIR sensor
Door opener
Action box
Action box
Camera
Intercom box
System monitor
External alarm

Time-lapse video recording



- High-density recording with superior audio and video quality
- Two models available
- Up to 30 hours 'real-time' and 960 hours time-lapse recording
- On-screen menus in seven languages
- Audio recording (up to 30 hours real-time mode)*

Time-lapse video recorders provide additional observation back-up, particularly for small and medium-sized businesses where it is not always possible to constantly observe the system monitor.

Both models offer valuable features like on-screen menus (seven languages) for easy set-up, battery-backed-up time/date generator, jog/shuttle for instant picture retrieval and automatic restart of recording after power fail. They also provide a Vext. pulse for synchronization with multiplexers. The two models are:

RT30A/51 / RT30A/61

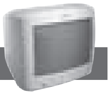
- 6, 18 or 30 hours real-time recording (E-180 tape / T-120 tape)
- Audio recording and playback in all three recording modes*

RT960A/51 / RT960A/61

- 6, 18 or 30 hours real-time recording (E-180 tape / T-120 tape)
- Audio recording and playback in all three real-time recording modes*
- 72, 96, 120, 168, 240, 480 and 960 hours time-lapse recording

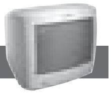
* 6 or 18 hour mode recommended for audio

Technical specifications



Switcher VSS7390 (PAL) / VS7390 (NTSC)	
Picture tube	14" (13" viewable)
Resolution	320 TVL (PAL) / 290 TVL (NTSC)
TV standard	PAL: 625 lines, 50 Hz, 2:1
Supply voltage	100-240 VAC +/-10%, 50/60 Hz
Power consumption	<75 W max. (without cameras)
Camera power supply	24 to 32 VDC, short-circuit protected
System synchronization	Monitor locks to the mains Cameras lock to H and V of the monitor
Camera inputs	4, system interface
Slave monitor output	1, system interface
Audio	1-way, from cameras 2-way with optional intercom unit
Microphone sensitivity	46 dB SPL @ 1 kHz
Audio speaker	500 mW rated, 1000 mW max.
Frequency range	300 Hz - 3 kHz
Alarm output	Relay, NO/NC contact (4-pole connector block) Contact rating 24 VAC or DC, 2A
Aux/VCR in/out	BNC for video (1 Vpp, input impedance 75 Ohm) RCA for audio (0.5 Vpp, input impedance 10 kOhm)
System cable	4-wire dual twisted pair 1 twist/inch, loop resistances max 16 Ohm at 100 m / 300 ft.
Max. cable length	200 m (300 m with interface box) 600 ft. (900 ft. with interface box)
Weight	Approx. 9.5 kg / 21 lbs.
Dimensions (HxWxD)	325x364x368 mm / 14.3x12.8x14.4 in
Operating temperature	+5°C …+45°C / 41°F…113°F
Storage temperature	-25°C …+70°C / -13°F…158°F

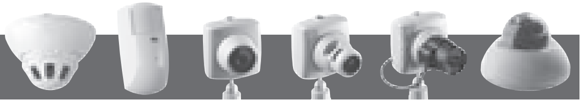
Set: PAL	**NTSC**	**Switcher, system cable, camera bracket plus:**
Indoor		
VSS7390/11	VS7390/11T	Camera with integrated lens, 3 mm
Indoor deluxe		
VSS7390/21	VS7390/21T	Camera with integrated manual varifocal lens, 3-6 mm
Indoor plus		
VSS7390/41	VS7390/41T	Dome camera with integrated lens, 3 mm
Outdoor		
VSS7390/31	VS7390/31T	Camera with CS-mount and DC-iris varifocal lens, 2.8-10 mm



Multiplexer VSS8394 (PAL) / VS8394 (NTSC)	
Picture tube	14" (13" viewable)
Resolution	320 TVL (PAL) / 290 TVL (NTSC)
TV standard	PAL: 625 lines, 50 Hz, 2:1 / NTSC: 525 lines, 60 Hz, 2:1
Supply voltage	100-240 VAC +/-10%, 50/60 Hz
Power consumption	<90 W max. (without cameras)
Camera power supply	24 to 32 VDC, short-circuit protected
System synchronization	Monitor locks to the mains Cameras lock to H and V of the monitor
Camera inputs	8, system interface
Slave monitor output	1, system interface
Audio	1-way, from cameras 2-way with optional intercom box
Microphone sensitivity	46 dB SPL @ 1 kHz
Audio speaker	500 mW rated, 1000 mW max.
Frequency range	300 Hz – 3 kHz
Alarm output	Relay, NO/NC contact (4-pole connector block) Contact rating 24VAC or DC, 2A
Aux/VCR in/out	BNC for video (1 Vpp, input impedance 75 Ohm) RCA for audio (0.5 Vpp, input impedance 10 kOhm) Vext. input (input for camera switch pulse from recorder)
System cable	4-wire dual twisted pair 1 twist/inch, loop resistances max 16 Ohm at 100 m / 300 ft.
Max. cable length	200 m (300 m with interface box) 600 ft. (900 ft. with interface box)
Weight	Approx. 9.5 kg / 21 lbs.
Dimensions (HxWxD)	325x364x368 mm / 14.3x12.8x14.4 in.
Operating temperature	+5°C …+45°C / 41°F …113°F
Storage temperature	-25°C …+70°C / -13°F …158°F
Ambient humidity	5% to 95% RH

Set: PAL	NTSC	Multiplexer, system cable, camera bracket plus:
Indoor		
VSS8394/11	VS8394/11T	Camera with integrated lens, 3 mm
Indoor deluxe		
VSS8394/21	VS8394/21T	Camera with integrated manual varifocal lens, 3-6 mm
Indoor plus		
VSS8394/41	VS8394/41T	Dome camera with integrated lens, 3 mm
Outdoor		
VSS8394/31	VS8394/31T	Camera with CS-mount and DC-iris varifocal lens, 2.8-10 mm
Bundle		
VSS8394/14	VS8394/14T	4 x camera with integrated lens, 3 mm

Bundle		
VSS8394/44	VS8394/44T	4 x dome camera with integrated lens, 3 mm
Bundle		
VSS8394/74	VS8394/74D	4 x camera with integrated lens, 3 mm, plus DVR1B1161
Bundle		
VSS8394/94	VS8394/94T	4 x camera with integrated lens, 3 mm, plus RT30A/51

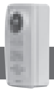


Digital color observation system cameras	
Sensor	1/4" Color or B/W CCD
Number of pixels	500 (H) x 582 (V) for PAL – interlaced 510 (H) x 492 (V) for NTSC – interlaced
Horizontal resolution	Color: 320 TVL B/W: 380 TVL
Light sensitivity	Color: < 2 lux, B/W: < 0.2 lux, (50 IRE, 100% scene reflection)
Connection TP	4-pole RJ11E (Video, Audio, Power, Communication)
Input voltage	24 VDC
Power consumption	< 2 W
AGC range	Automatic
Electronic shutter range	1/50 sec. to 1/100,000 sec.
Backlight compensation	Weighting window in center of picture Window size between 33-40% of picture height
Audio output	Built-in Electret microphone; 300 Hz – 4 kHz
White balance	Automatic 2500-9000K (only for color cameras)

Lens type: PAL	**NTSC**	
VCM7B272/00T	VC7B2725T	3.5-8 mm CS-mount varifocal DC iris lens, f 1.4-200
VCM7C130/00T	VC7C1305T	3 mm fixed focal lens, f 2.0
VCM7C230/00T	VC7C2305T	3-6 mm varifocal lens, f 1.2
VCM7C272/00T	VC7C2725T	2.8-10 mm CS-mount varifocal DC iris lens, f 1.4-360
VCM7C275/00T	VC7C2755T	5-50 mm CS-mount varifocal DC iris lens, f 1.7-360
VCM7D130/00T	VC7D1305T	3 mm fixed focal lens, f 2.0
VCM9736/10T	VC973650T	Pinhole fixed focal lens, f 2.0*
VCM9736/11T	VC973651T	3.8 mm fixed focal lens, f 2.0*
		* no microphone

Weight: PAL	**NTSC**	
VCM7B272/00T	VC7B2725T	approx. 0.25 kg (0.55 lbs.)
VCM7C130/00T	VC7C1305T	approx. 0.25 kg (0.55 lbs.)
VCM7C230/00T	VC7C2305T	approx. 0.25 kg (0.55 lbs.)
VCM7C272/00T	VC7C2725T	approx. 0.25 kg (0.55 lbs.)
VCM7C275/00T	VC7C2755T	approx. 0.34 kg (0.75 lbs.)
VCM7D130/00T	VC7D1305T	approx. 0.31 kg (0.68 lbs.)

VCM9736/10T	VC973650T	approx. 0.32 kg (0.70 lbs.)
VCM9736/11T	VC973651T	approx. 0.31 kg (0.68 lbs.)
Dimensions: PAL	**NTSC**	**(HxWxD)**
VCM7B272/00T	VC7B2725T	74x70x105 mm (2.9x2.8x3.7 in.)
VCM7C130/00T	VC7C1305T	74x70x65 mm (2.9x2.8x2.6 in.)
VCM7C230/00T	VC7C2305T	74x70x85 mm (2.9x2.8x3.3 in.)
VCM7C272/00T	VC7C2725T	74x70x105 mm (2.9x2.8x3.7 in.)
VCM7C275/00T	VC7C2755T	74x70x115 mm (2.9x2.8x4.5 in.)
VCM7D130/00T	VC7D1305T	Ø 115x80 (H) (4.5x3.1 in.)
VCM9736/10T	VC973650T	82x165x60 mm (3.2x6.5x2.4 in.)
VCM9736/11T	VC973651T	Ø 115x85 (H) (4.5x3.3 in.)
Operational temperature		-10°C …45°C / 14°F …113°F
Storage temperature		-25°C …70°C / -13°F …158°F
Relative humidity		0% to 95% RH (Non-condensing)
Add-ons		Cable 15 m (45 ft.) (4-wire dual twisted pair) Mono-pod



Eazeo outdoor video intercom (VSS7915/00T / VS79155T)

Electrical	
Power supply	24 VDC via dual twisted-pair system cable
Power consumption	<3.5 W
Intercom connection	4-pole RJ11E (video, audio, power, communication)
Intercom	
Two-way audio	Baseband audio 300 Hz - 3 kHz
Loudspeaker	Polycarbonate membrane, impedance 50 Ohm, max. output power 180 mW
Microphone	Integrated with loudspeaker, sensitivity 76 ±2 dB, 0.1 W/m, impedance 50 Ohm
Doorbell	On front of unit. Activates microphone and camera when pressed
Camera	
Sensor	1/4 inch color CCD
Number of pixels	500 (H) x 582 (V) interlaced (PAL) 510 (H) x 492 (V) interlaced (NTSC)
Horizontal resolution	320 TV lines
Light sensitivity	<2 lux (50 IRE, 100% scene reflection)
Lens type	3 mm fixed focus lens, f 2.0
AGC range	Automatic
Electrical shutter range	1/50 to 1/100,000 sec.
Backlight compensation	Weighting window in center of picture Window size 33 to 40% of picture height
White balance	Automatic, 2500 to 9000K

Environmental

Operational temperature	-20°C …+50°C / -4°F …+122°F
Storage temperature	-25°C …+70°C / -13°F …+158°F
Operational humidity	20 to 95%
Storage humidity	0 to 95%

Dimensions (WxHxD)

Intercom unit dimensions	80x163x56 mm / 3.1x6.4x2.5 in.
Weight	0.51 kg / 1.12 lbs.

Action / alarm box (VSS7902 / VS79025T)

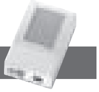
Power supply	24 VDC (via system cable)

Contact ratings

Action relay	30 V, 5 A AC/DC

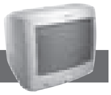
Alarm input

Trigger threshold	< 150 Ohm/ > 150 Ohm
System cable	4-wire dual twisted pair cable
System connectors	RJ11E modular
Dimensions (WxHxD)	119x77x40 mm / 4.7x3.0x1.6 in.
Weight	170 g / 0.37 lbs.
Operational temperature	-10°C …+45°C / 14°F …+113°F
Storage temperature	-25°C …+70°C / -13°F …+158°F
Operational humidity	20 to 90%
Storage humidity	0 to 99% RH



Interface box (VSS7903/00T / VS79035T)

Connections	• inputs	System cable
		Auxiliary audio input (Cinch, 0.5 Vpp, 10 kOhm)
		Auxiliary video input (BNC, 1 Vpp, 75 Ohm)
		Auxiliary power input (internal screw block, 24 VDC)
	• outputs	System cable
		Audio out (Cinch, 0.5 Vpp, 1 kOhm) from system input
		Video out (BNC, 1 Vpp, 75 Ohm) from system input
Power supply		24 VDC (via system cable or internal screw block)
System cable		4-wire dual twisted pair cable
System connectors		RJ11E modular
Dimensions (WxHxD)		119x77x40 mm / 4.7x3.0x1.6 in.
Weight		170 g / 0.37 lbs.
Operational temperature		-10°C …+45°C / 14°F …+113°F
Storage temperature		-25°C …+70°C / -13°F …+158°F
Operational humidity		20 to 90%
Storage humidity		0 to 99% RH



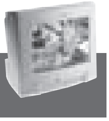
Color slave monitor (VSS9490/90 / VS9490/91T)

Picture tube	14" (13" viewable)
Resolution	320 TVL (PAL) / 290 TVL (NTSC)
TV standard	PAL: 625 lines, 50 Hz, 2:1 / NTSC: 525 lines, 60 Hz, 2:1
Supply voltage	100-240 VAC +/-10%, 50/60 Hz
Power consumption	<55 W max. (without cameras)
System synchronization	Monitor locks to the incoming video
Slave monitor input	1, system interface
Slave monitor output	1, system interface
Audio	1-way, from cameras 2-way with optional intercom box
Microphone sensitivity	46 dB SPL @ 1 kHz
Audio speaker	500 mW rated, 1000 mW max.
Frequency range	300 Hz - 3 kHz
System cable	4-wire dual twisted pair 1 twist/inch, loop resistances max. 16 Ohm at 100 m
Max. cable length	200 m / 600 ft. (300 m / 900 ft. with interface box)
Weight	Approx. 9.5 kg (21 lbs.)
Dimensions (WxHxD)	364x325x368 mm / 14.3x12.7x14.4 in.
Operating temperature	+5°C …+45°C (+41°F …+113°F)
Storage temperature	-25°C …+70°C (-13°F …+158°F)
Ambient humidity	5% to 95% RH

Eazeo Digital Video Recorder DVR1B1161

Video format	PAL/NTSC
Video input	1 camera input (BNC), 1 Vpp, 75 Ohm
Video output	1 video output (BNC) for main monitor, 1 Vpp, 75 Ohm
Video compression	M-JPEG
Video resolution	720x576 (PAL) / 720 x 484 (NTSC)
Video display	Full display for live and playback
Alarm input	Yes (switching voltage high: >2 VDC, low: <0,5 VDC)
Alarm output	Yes (max. 24 VDC, 2 A)
HDD storage	3.5” IDE, 160 Gb
Recording mode	Continuous, time-lapse, schedule or event recording
Recording rate	25 IPS (PAL) / 30 IPS (NTSC)
Playback rate	25 IPS (PAL) / 30 IPS (NTSC)
Playback search	Date/time, recording list or event (alarm)
Video loss detection	Yes
Alarm log	Yes
User interface	Menu-driven
Setup	By on-screen display menu

User input device	Front panel keypad, remote control, (optional) IR with wired receiver
Image export	Built-in Compact Flash slot
Security	Password protection
Power supply	100 - 240 VAC, 50/60 Hz
Power consumption	<40 W
Titles	12-character title generator
Timer	Weekly timer, built-in real-time clock
Network connection	TCP/IP via Ethernet, RJ45 connector
Control connection	RS-232, 9-pin D-Sub connector
Dimensions (WxHxD)	346x88x269 mm / 13.6x3.5x10.5 in.
Weight	4.3 kg / 9.5 lbs.
Operating temperature	0°C …+50°C / 32°F …122°F
Audio connectors	2 mono (Line) inputs, 1.6 Vpp ± 200 mV @ 10 kOhm 2 mono (speaker) outputs, 1.6 Vpp ± 200 mV @ 10 kOhm



Black & white switcher (VSS2360 / VS23605T)
Black & white quad (VSS2364 / VS23645T)

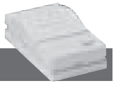
Picture tube		12” (11" viewable)
Resolution		>500 TVL
TV standard		50 Hz (CCIR) / 60 Hz (EIA)
For VSS2364	• Frame rate	25 fps (CCIR) – real-time
	• Event replay storage	16 images in 8 seconds
Mains power supply		100 - 240 V, 50 Hz
Power consumption		28 W max.
Camera power supply		24 VDC, short-circuit protected
Camera inputs		4 (system interface)
Slave monitor output		1 (system interface)
Audio		One-way, two-way with optional intercom box
Built-in microphone		Electret
Max. camera cable length		300 m / 900 ft. (600 m / 1800 ft. with accessory)
Alarm output	• 3-pole screw block	NO/NC + common contact
	• Contact rating	24 VDC, 2 A
Next camera input		2-pole screw block, normally open
Video cassette recorder	• Video input/output	Cinch (1 Vpp, 75 Ohm)
	• Audio input	Cinch (0.5 Vpp, 10 kOhm)
	• Audio output	Cinch (0.5 Vpp, 1 kOhm)
System cable		4-wire dual twisted pair cable
System connectors		RJ11E modular
Dimensions (WxHxD)		320x310x310 mm / 12.6x12.2x12.2 in.
Weight		6 kg / 13.2 lbs.

Operating temperature	+10°C …+45°C / +50°F …+113°F
Storage temperature	-25°C …+70°C / -13°F …158°F

Type no.: PAL	NTSC	Switcher or quad, system cable, camera bracket plus:
VSS2360/00T	VS23605T	Switcher + camera with integrated lens, 4 mm
VSS2364/00T	VS23645T	Quad + camera with integrated lens, 4 mm
VSS2364/C4T	VS23645P	Quad + 4 cameras with integrated lens, 4 mm

Black & white cameras 4 mm (VCM8637 / VC86775T) 8 mm (VCM8638 / VC86785T)

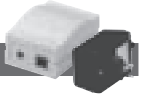
Pick-up device	1/3" (solid state CCD)
No. of picture elements (HxV)	512 x 582 (CCIR) / 512 x 492 (EIA)
Horizontal resolution	380 TVL
Gain control	Automatic
Iris	Electronic iris
Light sensitivity	0.2 lux (minimal acceptable picture) 0.5 lux, (50 IRE., 100% scene reflection)
Signal-to-Noise ratio	> 48 dB
Built-in Microphone	Electret (no microphone in PIR and Smoke)
Lens relative aperture	f 2.0
Lens viewing angle • 4 mm	64° (H) x 50° (V)
• 8 mm	30° (H) x 22° (V)
Power consumption	< 2.5 W
System cable	4-wire dual twisted pair cable
System connectors	RJ11E modular
Dimensions (WxHxD)	70x70x53.6 mm / 2.8x2.8x2.1 in. (incl. lens)
Weight	130 g / 0.3 lbs.
Operating temperature	-20°C …+55°C / -4°F …+131°F
Storage temperature	-25°C …+70°C / -13°F …+158°F
Operational humidity	20 to 90%
Storage humidity	0 to 99% RH



Intercom box (VSS2901)

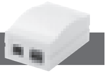
Call button	Push type
Audio output power	Max. 160 mW
Power supply	24 VDC (via system cable)
Power consumption	Max. 1 W
System cable	4-wire dual twisted pair cable
System connectors	RJ11E modular
Dimensions (WxHxD)	111x73x38 mm / 4.4x2.9x1.5 in.
Weight	135 g / 0.31 lbs.

Operating temperature	-10°C …+45°C / +14°F …+113°F
Storage temperature	-25°C …+70°C / -13°F …+158°F
Operational humidity	20 to 90%
Storage humidity	0 to 99% RH



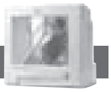
Cable extension adapter (VSS2904)

Power supply input	24 VDC (via system cable)
Power consumption	Max. 0.5 W
Alarm input (connector)	3-pole screw block (1x make/break)
Alarm input trigger	< 150 Ohm/ > 150 Ohm
System cable	4-wire dual twisted pair cable
System connectors	RJ11E modular
Dimensions (WxHxD)	93x60x42 mm / 3.7x2.4x1.7 in.
Weight	100 g / 0.22 lbs.
Operating temperature	-10°C …+45°C / +14°F …+113°F
Storage temperature	-25°C …+70°C / -13°F …+158°F
Operational humidity	20 to 90%
Storage humidity	0 to 99% RH



Action box (VSS2905)

Power supply input	24 VDC (via system cable)
Power consumption	Max. 0.5 W
Action relay output	3-pole screw block (1x make/break)
(connector) max. switching load	AC: 10 A/125 V, 6 A/250 V; DC: 5A/30 V
System cable	4-wire dual twisted pair cable
System connectors	RJ11E modular
Dimensions (WxHxD)	93x60x42 mm / 3.7x2.4x1.7 in.
Weight	100 g / 0.22 lbs.
Operating temperature	-10°C …+45°C / +14°F …+113°F
Storage temperature	-25°C …+70°C / -13°F …+158°F
Operational humidity	20 to 90%
Storage humidity	0 to 99% RH



Slave monitor (VSS9490 / VS44605T)

Picture tube		12" (11" viewable)
TV standard		50 Hz (CCIR) / 60 Hz (EIA)
Horizontal resolution		>500 TVL
Audio		Built-in speaker
Mains power supply		100 - 240 V, 50 Hz
Power consumption		Max. 18 W
System input		RJ11E modular for connection to system monitor
Standard A/V		
input/outputs	• Video input/output	Cinch (1 Vpp, 75 Ohm)
	• Audio input	Cinch (0.5 Vpp, 10 kOhm)
	• Audio output	Cinch (0.5 Vpp, 1 kOhm) (Outputs are looped through from system and cinch inputs)
System cable		4-wire dual twisted pair cable
Dimensions (WxHxD)		320x300x330 mm / 12.6x11.8x13 in.
Weight		6 kg / 13.2 lbs.
Operating temperature		-10°C …+45°C / +50°F …+113°F
Storage temperature		-25°C …+70°C / -13°F …+158°F
Operational humidity		20 to 90%
Storage humidity		0 to 99% RH

High-density video recorders (RT30A, RT960A)

TV system	PAL / NTSC
Video recording system	VHS, 4-head helical scan
Horizontal resolution B/W	>320 TV lines
Horizontal resolution Color	>270 TV lines
Video in	1.0 Vpp, 75 Ohm, unbalanced, BNC
Video out	1.0 Vpp, 75 Ohm, unbalanced, BNC
Signal to noise ratio	Better than 43 dB (6 hour mode)
Audio in	-6 dBm, 47 kOhm, unbalanced, RCA Phono jack
Audio out	-6 dBm, 1.5 kOhm, unbalanced, RCA Phono jack
Alarm record speeds	6, 18 and 30 hour mode
High-speed video scan	9 x 6 hour speed
Power source	90-264 VAC, 50 Hz (PAL) / 60 Hz (NTSC)
Power consumption	22 W
Dimensions (WxDxH)	360x270x94 mm / 14.2x10.6x3.7 in.
Weight	approx. 3.8 kg / 8.4 lbs.
User manual languages	German, English, Italian, Dutch, Spanish, French, Portuguese

Record duration (PAL)

Record mode		Actual hrs.		Tape speed	Recording fields	Drive	Audio
RT30A	RT960A	E-180	E-240				
6 h	6 h	6 h	8 h	11.69 mm/s	50 field/s	Continuous	Yes
18 h	18 h	18 h	24 h	3.90 mm/s	16.67 field/s	Continuous	Yes
30 h	30 h	30 h	40 h	2.34 mm/s	10 field/s	Continuous	Yes
	48 h	54 h	72 h	1.46 mm/s	5.56 field/s	Intermittent	No
	72 h	78 h	104 h	0.90 mm/s	3.85 field/s	Intermittent	No
	120 h	126 h	168 h	0.56 mm/s	2.38 field/s	Intermittent	No
	168 h	174 h	232 h	0.40 mm/s	1.73 field/s	Intermittent	No
	240 h	246 h	328 h	0.29 mm/s	1.22 field/s	Intermittent	No
	480 h	486 h	648 h	0.14 mm/s	0.62 field/s	Intermittent	No
	960 h	966 h	1288 h	0.07 mm/s	0.31 field/s	Intermittent	No

Record duration (NTSC)

Record mode		Actual hrs.		Tape speed	Recording fields	Drive	Audio
RT30A	RT960A	E-180	E-240				
6 h	6 h	6 h	8 h	11.12 mm/s	60 field/s	Continuous	Yes
18 h	18 h	18 h	24 h	3.71 mm/s	20 field/s	Continuous	Yes
30 h	30 h	30 h	40 h	2.22 mm/s	12 field/s	Continuous	Yes
	48 h	54 h	72 h	1.40 mm/s	6.67 field/s	Intermittent	No
	72 h	78 h	104 h	0.93 mm/s	5 field/s	Intermittent	No
	120 h	126 h	168 h	0.56 mm/s	3 field/s	Intermittent	No
	168 h	174 h	232 h	0.40 mm/s	2.14 field/s	Intermittent	No
	240 h	246 h	328 h	0.28 mm/s	1.5 field/s	Intermittent	No
	480 h	486 h	648 h	0.14 mm/s	0.75 field/s	Intermittent	No
	960 h	966 h	1288 h	0.07 mm/s	0.38 field/s	Intermittent	No

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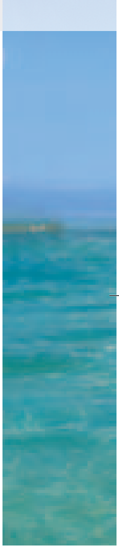

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