SONY

TIME LAPSE VIDEOCASSETTE RECORDER

SVT-168
SVT-168E/SVT-40E
(16 5/8 x 4 x 11 7/8 inches)

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TIME LAPSE VIDEOCASSETTE RECORDER

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- Fast forward and rewind: 100 seconds with an entire T-120 tape
- Quick start mechanism for smooth operation
- Improved Time/Date search accuracy: 10 minute increments
- Alarm list recording: At the tape end, if there were any alarms received during recording, the tape is rewound and the alarm list information is recorded onto the tape
- Real-time display indicates real operating times in recording or stop modes
- On-screen display available in English, French, and German
- Built-in time and date generator
- Automatic clock adjust
- Remote control function with optional remote control unit
- Used time indicator
- Power saving mode
- Loop-through capability
- Camera switcher interface
- RS-232C/RS-485 interface

Front Panel

Rear Panel

SVT-RM10

SVT-168

SVT-168E

SVT-40E

SPECIFICATIONS

	SVT-168 / SVT-168E / SVT-40E	
General		
Mass	Approx. 4.3 kg (9 lb 6 oz)	
Dimensions	420 (W) x 100 (H) x 300 (D) mm (16 5/8 x 4 x 11 7/8 inches)	
Power requirements	120 V, 60 Hz	
Power consumption	17 W	
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)	
Operating humidity	80 % or less	
Fast forward/rewind time	Approx. 100 seconds (when using T-120 tape)	
System		
Video signal	EIA standard (monochrome) NTSC (color)	
Recording/Playback system	Rotary four head helical scanning system	
	SVT-168	
Tape speed	33.35 mm/sec (2-hour mode)	
Recording/Playback time	T-120	2, 12, 24, 48, 72, 96, 120 and 168 hours
	SVT-168E	**SVT-40E**
Tape speed	11.12 mm/sec (6 or 8-hour mode)	
Recording/ Playback time	T-120	6, 18, 30, 48, 72, 96, 120 168 hours	6, 18, 30 hours
	T-160	8, 24, 40, 64, 96, 128, 160, 224 hours	8, 24, 40 hours
	SVT-168 / SVT-168E / SVT-40E	
Horizontal resolution	B/W	350 TV lines or more
	Color	300 TV lines or more
Video Input/Output		
Input	BNC (1), 1 Vp-p, 75 Ω, unbalanced	
Output	BNC (1), 1 Vp-p, 75 Ω, unbalanced	
S/N ratio	44 dB	
Audio Input/Output		
Audio recording system	Monaural	
Input	Phono (1), -8 dBs, 47 kΩ, unbalanced	
Output	Phono (1), -8 dBs, 600 Ω, unbalanced	
Microphone input	Ø3.5 mm minijack (1), -60 dBs, 600 Ω	
Distortion	Less than 4 %	
Audio S/N ratio	42 dB	
Others		
Alarm input	Low level, terminal trip (1)	
Alarm output	+5 V, 5.7 kΩ (low active), terminal trip (1)	
Switch output	+5 V, 5.7 kΩ, terminal trip (1)	
Tape end output	+5 V, 5.7 kΩ (low active), terminal trip (1)	
Warning output	+5 V, 5.7 kΩ (low active), terminal trip (1)	
External timer input	Low level, terminal trip (1)	
Clock set output	+5 V, 5.7 kΩ (low active), terminal trip (1)	
Clock set input	Low level, terminal trip (1)	
Series output	+5 V, 5.7 kΩ (low active), terminal trip (1)	
Series input	Low level	
Remote control input	Ø3.5 mm minijack (1)	
Supplied Accessories		
	Operation manual (1), AC power cord (1)	
Optional Accessories		
	SVT-RM10 Remote Control Unit	

SONY

SONY SECURITY SYSTEMS

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REAL ACTION
The SVT-168E/40E achieves high quality time lapse recording thanks to RealAction recording technology. For example, conventional time lapse VTRs rec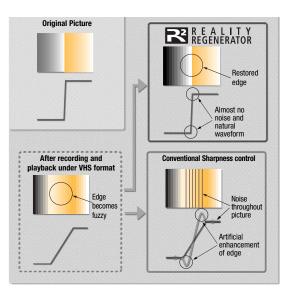ord only 5 fields per second in 24-hour recording mode, but Sony RealAction technology allows recording of 20 fields per second - four times as much information. This recording density ensures smooth, natural recording even of fast moving objects.

RealAction recording 20 fields/second (SVT-168E/SVT-40E in 24-hour record mode)

Normal time lapse recording 5 fields/second (SVT-168 in 24-hour record mode)

REALITY REGENERATOR (R²)
The Reality Regenerator improves upon the conventional sharpness control function. While sharpness control makes outlines sharper in the reproduced picture, a side effect of this feature is that it artificially enhances outline edges and increases noise. The result is an unnatural, noisy picture. Reality Regenerator minimizes these side effects by reproducing a video signal very similar to the original. This is achieved by first detecting the edge of the playback signal, separating it into three parts (right, left and center), and then adding the new signal to the playback signal. The result is very little noise and more accurate picture reproduction during playback.

Original Picture

REALITY REGENERATOR
- Restored edge
- Almost no noise and natural waveform

After recording and playback under VHS format
- Edge becomes fuzzy

Conventional Sharpness control
- Noise throughout picture
- Artificial enhancement of edge

APC (ADAPTIVE PICTURE CONTROL)
To provide maximum quality recording at all times, the APC feature automatically detects the condition of the recording head and the videocassette tape, and then sets the optimum recording head current. This feature enables the videocassette recorder to record clear images even after a long period of use.

VARIETY OF RECORDING MODES
Auto Repeat
Automatically rewinds the tape when it reaches the tape end, and re-starts recording. It facilities virtually continuous, non-attended operation using a single tape. Auto Repeat can be automatically disabled in Alarm Recording mode to prevent recording over an alarm event.

Timer Recording
Built-in timer allows the exact recording time and the desired recording mode to be set in advance. Timer Recording can be preset to either weekly or daily. Holiday and daylight settings are also available. External timer recording is available via the EXT TIMER IN terminal. Even in Standby mode, if an alarm occurs, the unit initiates recording as required.

```
■ TIMER SET
WEEK     START    STOP    SPEED
SUN      --:--    --:--    ---      OFF
MON      --:--    --:--    ---      OFF
TUE      --:--    --:--    ---      OFF
WED      --:--    --:--    ---      OFF
THU      --:--    --:--    ---      OFF
FRI      --:--    --:--    ---      OFF
SAT      --:--    --:--    ---      OFF
MON-SUN  --:--    --:--    ---      OFF
EXT      --:--    --:--    ---      OFF
                   <NEXT PUSH⊳>
SELECT: ▽ / ▷   DATE SET: +/-    RETURN: MENU
```

Alarm Recording
When an alarm signal is received via ALARM IN terminal, the recorder automatically switches to Alarm Recording mode, even if it is in Stop or Power-off mode. Alarm Recording speed and duration can be set in advance.

Various functions such as Alarm Scan, Alarm Recall and Alarm Search are available to quickly locate and review recorded alarm segments.

Up to 100 Alarm data can be recorded* at the top of the tape. So, even if the tape is ejected, the data is retained on the tape and reviewed when necessary.
*This function can be disabled.

Series Recording
Several units can be cascaded to extend the total recording time. As soon as one unit finishes recording, the next unit is turned on and continues recording without interruption.

RELIABLE SAFETY FEATURES
Quick Recording Check
If the REC CHECK button is pressed when recording in time lapse mode, the tape rewinds for about three seconds and then plays back for about two seconds. The unit then returns to its original recording mode.

Power Failure Protection
Even in case of power failure, a built-in lithium battery supplies back-up power to retain the current time and setting modes in memory for up to 30 days.

Warning Signal Output
If recording is inadvertently stopped, a pulse signal is output via the WARNING OUT terminal.

Tape Use Frequency Check*
Records the number of the time tape used on the beginning of the tape for checking.
*This function can be disabled.

Automatic Head Cleaning
Thread Check
Clog Detection
Tape End Eject
Security Lock Function

MAXIMUM RECORDING TIMES

SVT-168

Recording Speed	Maximum Recording Time with T-120		Interval	Audio Recording
2	Standard	2	1/60	Possible
12		14	0.12	
24		26	0.22	
48		50	0.42	Impossible
72	Time Lapse Mode	74	0.62	
96		98	0.82	
120		122	1.02	
168		170	1.42	

SVT-168E / SVT-40E

Recording Speed		Maximum Recording Time			Interval	Audio Recording
T-120	T-160		T-120	T-160		
6	8	EP mode	6	8	1/60	Possible
18	24		18	24	1/20	
30	40		30	40	1/12	
48	64	Time Lapse Mode	54	72	0.15	Impossible
72	96		78	104	0.22	
96	128		102	136	0.28	
120	160		126	168	0.25	
168	224		174	232	0.28	