



DISC Multirecorder Drive based on Panasonic DVD-RAM SW-9583:

Available for:

- Mercury (SE only)
- NSM2000 (SE only)
- NSM3000 (LVD + SE)
- NSM4000 (LVD + SE)
- NSM6000 (LVD + SE)
- NSM7000 (LVD + SE)

General Specification

The SW-9583-CPN can play the following types of disc:

- CD: CD-Audio
CD-ROM (mode 1 and mode 2)
CD-ROM XA (mode 2, form 1 and form 2)
CD-I (mode 2, form 1 and form 2)
CD-I Ready
CD-I Bridge
CD-WO
CD-R
CD-RW
Photo CD
Video CD
Enhanced Music CD (CD Plus)
CD-TEXT
- DVD: DVD-5
DVD-9
DVD-10
DVD-18
DVD-R (3.95G/4.7G)
DVD-RAM (2.6G/4.7G)
DVD-RW
DVD Video
+R
+RW

The MPEG data is not decoded.

CD-DA digital is available through the SCSI interface and an error flag can be transferred with CDDA data. The CD-DA digital data has all normal CD-DA error correction, interpolation and de-emphasis performed prior to being transmitted on the SCSI bus. In case of writing, on the other hand, the CD-DA digital data, which is transmitted on SCSI bus, is encoded by normal CD-DA error correction and then added Sub-code data according to circumstances prior to being written on the CD-R/RW media.

Analogue audio output is not supported.



The SW-9583 can operate in CAV mode for CD discs, and can operate in CAV mode for DVD discs, and can write in CLV or Z-CLV mode for DVD-RAM/-R/-RW and CD-R/RW discs.

The SW-9583-CPN supports the following DVD/CD discs and writing methods:

DVD:	
DVD-RAM	Random Write
DVD-R 4.7GB for General (Ver.2.0)	Disc at Once, Incremental
DVD-RW (Ver.1.1)	Disc at Once, Incremental, and Restricted Overwrite
+R	Sequential Recording
+RW	Multi-Session Random Write
CD:	
CD-R, CD-RW	Disc at Once Session at Once Track at Once Fixed/Variable packet writing Multi-session

Transfer rates:

	Read	Write
DVD-ROM (single layer)	5.0X ~ 12X CAV 6 925 Kbyte/s ~ 16 620 Kbyte/s	-
DVD-ROM (dual layer)	3.3X ~ 8X CAV 4 570 Kbyte/s ~ 11 080 Kbyte/s	-
DVD-R (4.7G)	3.3X ~ 8X CAV 4 570 Kbyte/s ~ 11 080 Kbyte/s	4X ~ 8X Z-CLV 5 540 Kbyte/s ~ 11 080 Kbyte/s
DVD-R (3.95G)	3.3X ~ 8X CAV 4 570 Kbyte/s ~ 11 080 Kbyte/s	-
DVD-RW	3.3X ~ 8X CAV 4 570 Kbyte/s ~ 11 080 Kbyte/s	4X CLV 5 540 Kbyte/s
DVD-RAM (2.6G)	1X Z-CLV 1 385 Kbyte/s	-
DVD-RAM (4.7G)	3X Z-CLV 4 155 Kbyte/s	3X Z-CLV 4 155 Kbyte/s
+R	3.3X ~ 8X CAV 4 570 Kbyte/s ~ 11 080 Kbyte/s	4X ~ 8X Z-CLV 5 540 Kbyte/s ~ 11 080 Kbyte/s
+RW	3.3X ~ 8X CAV 4 570 Kbyte/s ~ 11 080 Kbyte/s	4X CLV 5 540 Kbyte/s
CD-ROM (*1)	13.8X ~ 32X CAV 2 070 Kbyte/s ~ 4 800 Kbyte/s	-
CD-R (*1)	13.8X ~ 32X CAV 2 070 Kbyte/s ~ 4 800 Kbyte/s	12X ~ 24X Z-CLV 1 800 Kbyte/s ~ 3 600 Kbyte/s
CD-RW (*1) (Ultra Speed RW)	10.3X ~ 24X CAV 1 545 Kbyte/s ~ 3 600 Kbyte/s	12X Z-CLV 1 800 Kbyte/s
DVD-Video	8X CAV	-
CD-DA	24X CAV	-

Note (*1): in case of mode 1 form 2 data



Data/Audio Capacity

CD:

Data Capacity	Mode 1	703 Mbyte
	Mode 2	797 Mbyte

Playing Time 79 min and 58 s

Note: Data Capacity and Playing Time depend on Linear velocity and Track pitch of the disc.
Maximum Data capacity for writing depends on each CD-R/RW media vender and Data format.

DVD:

Data Capacity	Single Layer	4.7 Gbyte
	Dual Layer	8.5 Gbyte
	Single Layer Double Side	9.4 Gbyte
	Dual Layer Double Side	17.0 Gbyte
	DVD-RAM	2.6 Gbyte
		4.7 Gbyte
	DVD-R	3.95 Gbyte
		4.7 Gbyte
	DVD-RW	4.7 Gbyte
	+R	4.7 Gbyte
	+RW	4.7 Gbyte

Note: Data Capacity and Playing Time are dependent on Liner Velocity and track pitch of the disc.

Spin Up Time

From loading to ready	Typical 15 s (CD, DVD-5)
From standby mode to ready	Typical 4 s
Spin Down Time	Typical 4 s

Access Time

CD:

Random	CAV mode	Typical 130 ms
	Full Stroke CAV mode	Typical 290 ms

DVD-5:

Random	CAV mode	Typical 140 ms
	Full Stroke CAV mode	Typical 300 ms

DVD-RAM (2.6G):

Random	Typical 250 ms
Full Stroke	Typical 390 ms

DVD-RAM (4.7G):

Random	Typical 240 ms
Full Stroke	Typical 380 ms

Reliability

The drive is rebuilt for jukebox usage with about 10 times higher mechanical lifetime.

MLBF: 250000 loads

MTBF: 50000 hours

MTBF for the Laser (read/write access duty): 5000 hours