

Safety Regulations

Owner’s Record

The model and serial numbers are located on the top of the drive. Record the model and serial number in the space provided below.
Refer to them whenever you call upon your Sony dealer regarding this product.
Model No. SMO-F551
Serial No. _____

Information

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
To avoid electrical shock, do not open the cabinet.
Refer servicing to qualified personnel only.

CAUTION

As the laser beam used in the SMO-F551 series is harmful to the eyes, do not attempt to disassemble the unit. Refer servicing to qualified personnel only.
The use of optical instruments with this product will increase eye hazard.
The use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation.

DANGER LASER RADIATION WHEN OPEN.
AVOID DIRECT EXPOSURE TO BEAM.

DANGER RADIATIONS DU LASER EN CAS D'OUVERTURE.
EVITER TOUTE EXPOSITION DIRECTE AU FAISCEAU.

VORSICHT LASERSTRAHLUNG, WENN ABDECKUNG
GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

This label is located on the drive unit’s internal chassis. Dieses Etikett befindet sich auf dem inneren Chassis des Laufwerkes.

This MO drive is classified as a CLASS 1 LASER PRODUCT.

CLASS 1
LASER PRODUCT

LASER KLASSE 1
PRODUKT

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT

CAUTION CLASS 3B LASER RADIATION WHEN OPEN.
AVOID DIRECT EXPOSURE TO THE BEAM.

ATTENTION RADIATIONS LASER DE CLASSE 3B EN CAS D'OUVERTURE.
EVITER TOUTE EXPOSITION DIRECTE AU FAISCEAU.

VORSICHT KLASSE 3B LASERSTRAHLUNG WENN GEÖFFNET.
DIREKTEN KONTAKT MIT DEM STRAHL VERMEIDEN.

ADVARSEL LASERSTRÅLING AF KLASSE 3B VED ÅBNING.
UNDGÅ DIREKTE UDSÆTTELSE FOR STRÅLING.

ADVARSEL LASERSTRÅLING I KLASSE 3B NÅR DEKSEL ÅPNES.
UNNGÅ DIREKTE EKSPONERING FOR STRÅLEN.

VARNING KLAS 3B LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD.
UNDVIK ATT DIREKT EXPONERA DIG FÖR STRÅLNINGEN.

VARO! AVATTUNA LUOKAN 3B LASERSÄTEILYÄ.
VÄLTÄ SUORAA ALTISTUMISTA SÄTEELLE.

These labels are located on the top of the drive unit enclosure.
Diese Etiketten befinden sich an der Oberseite des Laufwerksgehäuses.

Specifications

■ Laser	
Type	Semiconductor AlGaInP laser
Wavelength	685 nm ± 10 nm
Maximum output	30 mW

Technische Daten

■ Laser	
Typ	Halbleiter AlGaInP-Laser
Wellenlänge	685 nm ± 10 nm
Max. Leistung	30 mW

이 기기는 가정용으로 전자파 적합등록을 한 기기로서 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Diese Ausrüstung erfüllt die Europäischen EMC-Bestimmungen für die Verwendung in folgender / folgenden Umgebung(en):
• Wohngegenden
• Gewerbegebiete
• Leichtindustrialgebiete
(Diese Austüftung erfüllt die Bestimmungen der Norm EN55022, Klasse B.)

Precautions

Safety Considerations

- **Power supply**
 - Be sure to use +5 V, +12 V DC.

Damage Prevention

- **Do not subject the drive to shock or vibration**

- **Location requirements**

Careful consideration should be given to the following in selecting a site to install or store your drive.
Avoid the following conditions:

 - High humidity
 - High temperatures
 - Direct sunlight
 - Dust
 - Strong vibration
 - Wide temperature fluctuations

- **Moving the drive**

Be sure to remove the disk cartridge when the drive is not being used. Also never move or transport the drive with the disk cartridge still inserted.

- **If problems occur**

If any problems occur, turn off the power and unplug the drive, contact your dealer.

Warning about Cleaning

In the drive, preventive measures are taken to guard against dust. It is unnecessary to clean the optical lens of your drive. Using a lens cleaning cartridge may damage the drive.

Cooling Requirements

Forced-air cooling is required throughout the drive, preventing overheat of the drive mechanism and electrical components. Forced-air cooling must be provided as a system integration.

This maximum temperature is applicable to all operating conditions specified in this manual.

Measuring Point	Maximum Temperature
Disk Cartridge	55 °C (131 °F)

The temperature conditions specified in this manual must always be met for the SMO-F551 series to function properly.

MO Disk Drive

User’s Guide

SMO-F551 Series

Printed in Japan

Specifications

- **Operating environment**

Installation	±10°
Temperature	
Operating	5 °C to 45 °C (gradient 10° C/h or 18 °F/h)
Relative humidity	
Operating	10 % to 90 % (no condensation)

- **Power supply and others**

Power supply	+5 V ±5%, 0.8 A (typ.) +12 V ±5%, 0.9 A (typ.)
Dimensions	41.3 × 146.0 × 203.0 mm (H×W×D) (without Front Panel)
Weight	1.5 kg

Design and specifications are subject to change without notice.

Compatible Media

The SMO-F551 series is compatible with the following 5 1/4 inch (130 mm) Magneto Optical Disks.

Model name	Compatibility		Type	Description		ISO Standard
	Read	Write				
SMO-F551 series	☐	☐	8× R/W	5.2GB	2048 bytes/sector	ISO/IEC 15286 (working draft)
	☐	☐	8× R/W	4.8GB	1024 bytes/sector	
	☐	☐	8× WO	5.2GB	2048 bytes/sector	
	☐	☐	8× WO	4.8GB	1024 bytes/sector	
	☐	☐	8× WO	4.1GB	512 bytes/sector	ISO/IEC 14517
	☐	☐	4× R/W	2.6GB	1024 bytes/sector	
	☐	☐	4× R/W	2.3GB	512 bytes/sector	
	☐	☐	4× WO	2.6GB	1024 bytes/sector	
	☐	☐	4× WO	2.3GB	512 bytes/sector	
	☐	☐	4× DOW	2.6GB	1024 bytes/sector	
SMO-F551	☐	☐	2× R/W	1.3GB	1024 bytes/sector	ISO/IEC 13549
	☐	☐	2× R/W	1.2GB	512 bytes/sector	
	☐	☐	2× WO	1.3GB	1024 bytes/sector	
	☐	☐	2× WO	1.2GB	512 bytes/sector	
	☐	☐	1× R/W	650MB	1024 bytes/sector	ISO/IEC 10089
	☐	☐	1× R/W	594MB	512 bytes/sector	ISO/IEC 11560
	☐	☐	1× WO	594MB	512 bytes/sector	ISO/IEC 11560
SMO-F551 -DD	☐	☐	2× R/W	1.3GB	1024 bytes/sector	ISO/IEC 13549
	☐	☐	2× R/W	1.2GB	512 bytes/sector	
	☐	☐	2× WO	1.3GB	1024 bytes/sector	
	☐	☐	2× WO	1.2GB	512 bytes/sector	
	☐	☐	1× R/W	650MB	1024 bytes/sector	ISO/IEC 10089
	☐	☐	1× R/W	594MB	512 bytes/sector	ISO/IEC 11560
	☐	☐	1× WO	594MB	512 bytes/sector	ISO/IEC 11560
SMO-F551 -SD	☐	☐	2× R/W	1.3GB	1024 bytes/sector	ISO/IEC 13549
	☐	☐	2× R/W	1.2GB	512 bytes/sector	
	☐	☐	2× WO	1.3GB	1024 bytes/sector	
	☐	☐	2× WO	1.2GB	512 bytes/sector	
	☐	☐	1× R/W	650MB	1024 bytes/sector	ISO/IEC 10089
	☐	☐	1× R/W	594MB	512 bytes/sector	ISO/IEC 11560
	☐	☐	1× WO	594MB	512 bytes/sector	ISO/IEC 11560

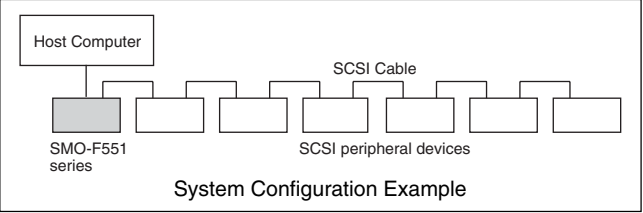
W/R : Rewritable, WO : Write-Once, DOW : Direct Overwrite

Operation of the SMO-F551 series is guaranteed ONLY with Sony disks.

Configuration and Location of Parts

System Configuration

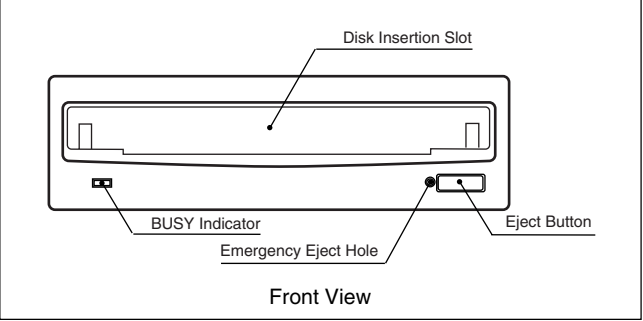
The SMO-F551 series is connected to a host computer through its SCSI interface. The maximum of seven peripheral devices can be linked as a daisy chain on the SCSI bus.



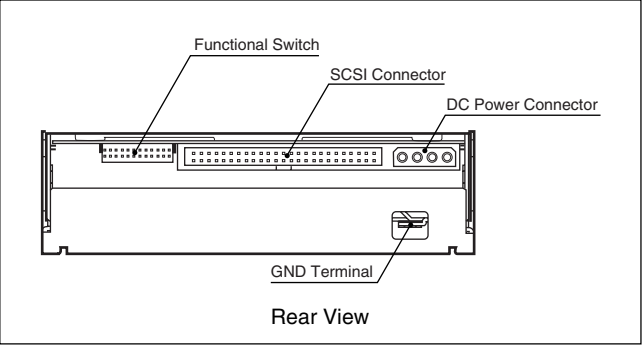
Location of Parts

This section provides a general description of the SMO-F551 series Magneto-Optical disk drive.

Front Panel



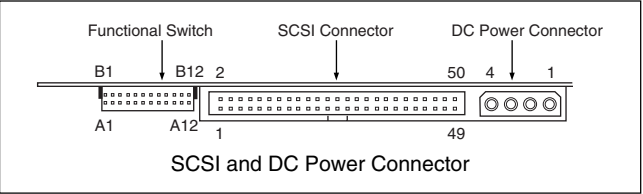
Rear Panel



SCSI and DC Power Connector

The SCSI and DC Power Connector is located at the upper rear of the drive. The drive uses a Molex 53450-5431 combination 50 pin SCSI and 4 pin DC Power male header.

Recommended female connectors:
SCSI connector: 3M type number 7950-6500
DC Power connector: AMP 1-480424-0 MATE-N-LOCK



Switch setting and Assignments

Functional Switch Connector Pin Assignments

A1	SCSI ID2	B1	GND
A2	SCSI ID1	B2	GND
A3	SCSI ID0	B3	GND
A4	Disable SCSI Parity	B4	GND
A5	Disable Write Cache	B5*	Reserved
A6	Disable Auto Spin-up	B6*	Reserved
A7	Force Verify for Write command	B7*	Reserved
A8	Disable Manual Eject	B8*	Reserved
A9	Enable Fast SCSI	B9*	Reserved
A10	Device Type	B10*	Reserved
A11	Enable Termination	B11	GND
A12	Terminator Power	B12	Terminator Power Source

* This pin is NOT directly connected to the GND. Do not use this pin as GND. The SMO-F551 series drives the signal to GND level depending on the functional switch setting. Otherwise, the signal is not driven to GND level.

WARNING: Write cache is enabled as default setting. The integrity of the buffer memory content is not guaranteed through power cycling.

Caution: “Disable Write Cache” setting works as an “OR” function with the optional dip switch setting.

Caution: When the Fast SCSI function is used, it is recommended that the host system and SCSI cables should conform to the Fast SCSI.

DC Power Connector Pin Assignments

Pin Number	Description
1	DC +12V
2	+12V Return
3	+5V Return
4	DC +5V

Pin Assignments of SCSI Connector

Signal Name	Pin No.	Signal Name
GND	1	DB0
GND	3	DB1
GND	5	DB2
GND	7	DB3
GND	9	DB4
GND	11	DB5
GND	13	DB6
GND	15	DB7
GND	17	DBP
GND	19	GND
GND	21	GND
GND	23	GND
OPEN	25	(TERM PW)
GND	27	GND
GND	29	GND
GND	31	ATN
GND	33	GND
GND	35	BSY
GND	37	ACK
GND	39	RST
GND	41	MSG
GND	43	SEL
GND	45	C/D
GND	47	REQ
GND	49	I/O

The bar “—” above the signal indicates active low.

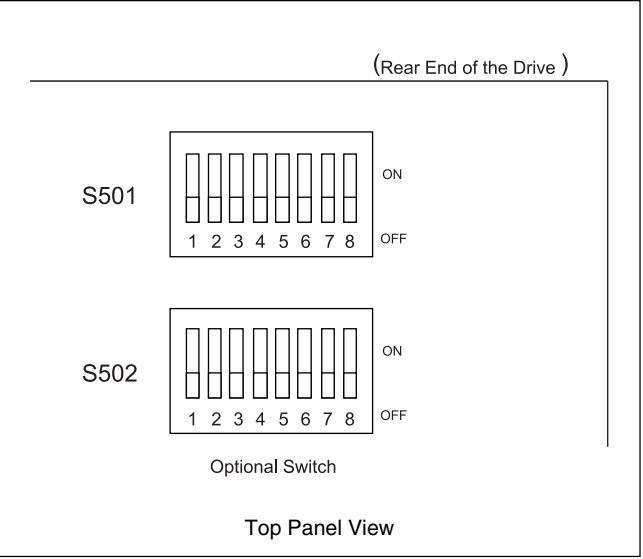
SCSI Terminator

The SMO-F551 series features an internal SCSI bus terminator. When the drive is connected at the end of the SCSI chain, functional switch #11 (Enable Terminator) may be used to terminated the SCSI connection.

For a single ended cable, 50-signal conductor flat cable or a 25-signal twisted cable can be used. The cable length shall not exceed six meters.

Optional Switch Setting

The SMO-F551 series features Optional Switch S501 and S502. These two optional dip switches allow the user to set the drive configurations.



Optional Dip Switch Assignments

Optional Switch	Switch Number	Description
S501	1	Reserved
	2	Reserved
	3	Disable Command Eject
	4	Reserved
	5	Reserved
	6	Reserved
	7	Disable Write Cache
	8	Disable Auto Spin-up
S502	1	Reserved
	2	Reserved
	3	Reserved
	4	Reserved
	5	Disable SCAM Selection
	6	Reserved
	7	Reserved
	8	Enable Write Cache for Write and Verify Command